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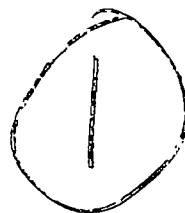
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Charles Taylor, Sources of the Self

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ARTICLES

VARIETIES OF PLURALISM IN A POLYPHONIC SOCIETY

AMELIE OKSENBERG RORTY

Those who are careful, fair and conservative—those of a moderate temperament—are not keen; they lack a certain sort of quick active boldness. The courageous on the other hand are far less just and cautious, but they are excellent at getting things done. A community can never function well . . . unless both of these are present and active . . . woven together by the ruler.¹

I

NO SOCIETY, NO COMMUNITY can operate without the contributions of distinctive types of mentalities and talents. No society or community is just unless it acknowledges and rewards the contributions of distinctive types of perspectives.²

It is, as Plato saw, precisely our incompleteness and interdependence, our need for the cooperation of our fellows in the sustenance of daily life, that impels us to social arrangements in the first place. Indeed it is our psychological and physical specialization that makes *functional pluralism*—the differentiation of social roles and tasks—necessary. But those who perform different roles and functions in a polity often disagree about priorities for the general good. The best sort of functional pluralism—the most just form—is that which allocates social roles, tasks, and rewards according to talents and abilities.

Obviously this presents us with at least two outstanding moral and political problems, the problem of designing educational institutions that will best develop psychological pluralism and the problem of designing a social and political system that will best coordinate functional and psychological pluralism, so that each psy-

¹ Plato, *The Statesman* 311a-c.

² Cf. Michael Walzer, *Spheres of Justice* (New York: Basic Books, 1983).

chological type finds the flourishing role. Plato drew far-reaching political and moral consequences from his analysis of the origin and function of social-political life. Because he held that (1) well-formed psychological pluralism does not automatically reproduce itself reliably across generations and (2) functional pluralism does not assure its own harmonic development, Plato argued that the primary task of the philosopher-king is that of developing and coordinating the psychological diversity of its citizens, one for all and all for one. The primary task of a Platonic political system is that of constructing institutions and promoting a civic culture that allows the fullest satisfaction of each type compatibly with that of the others. The Platonic solution is to present—or create—a set of shared general ends or aims that unite or coordinate the distinctive temperaments, even if each type has a somewhat different interpretation of those ends. This solution nestles pluralism within the scope of a constructed, ambiguous communitarian monism. It would require a long investigation for another occasion to determine whether Plato was right in believing that the solution to the coordination of diversity requires nothing less than the unifying structure and education described in the *Republic*, eugenics, noble lies and all.

II

But I have run ahead of my story. The term “pluralism” is vague and encompassing.³ It can refer to significant, persistent systematic differences in a relatively well-defined field (such as the separation of powers or parties in the formation of a political system); it can refer to a persistent division of interests; it can refer to the varieties of groups that compose the population of a nation-state; it can refer to nonreductive, competitive systems of explanation. Without marking any priorities among them, I want to distinguish a number of different types and levels of pluralism. Each of these forms of pluralism brings distinctive benefits; each is open to distinctive pathologies and therapeutic measures.

To begin with, we need to distinguish global pluralism from regional pluralism. Global pluralism postulates the existence of a

³ Cf. William James, *A Pluralistic Universe* (New York: Longmans, Green and Co., 1943), ch. 1.

plurality of comprehensive, hermetically sealed systems that are not conjoined or subsumed by any overarching set of concepts or purposes.⁴ Any "communication" among these systems remains radically ambiguous, with each system having an entirely different understanding of the map of systems. Each system has its own Olympic understanding; there is no single meta-Olympic point of view.⁵ There is pluralism all the way down as well as all the way up. Even descriptions of particular phenomena and practices are radically ambiguous between systems. By contrast, local pluralism postulates independent perspectives or functions that nevertheless interact within one loosely defined system. When their interaction is intentional and cooperative, each has a different interpretation of the general aims upon which they nominally agree.

We can also distinguish intellectual from practical pluralism. Intellectual pluralism encompasses complementary or competitive systems of thought. Though usually skeptical about intersystemic translation and convergence, it is compatible with shared and even identical practices. Practical pluralism involves the differentiation or segmentation of actions and practices, since they might express differences in action-guiding priorities and plans. It allows that distinctive groups might, despite their different and often competing policies or categorial frameworks, nevertheless coordinate their practices. Sometimes this is achieved by the rhetorical strategy of promoting "agreement" on ambiguous and even vague general ends.

There is another way of differentiating types of pluralism:

1) There is the historically accidental cultural pluralism of race, ethnicity, and religion that standardly brings differences in values, morality, modes, and habits of life. Intellectually, a group's cultural identity is largely expressed in its primary conceptual categories,

⁴ Cf. the papers by Lukes and Hollis in Martin Hollis and Steven Lukes, eds., *Rationality and Relativism* (Cambridge, Mass.: MIT Press, 1982) and by Peter Winch in *Rationality*, ed. Bryan Wilson (New York: Harper, 1970).

⁵ Stephen Pepper (*World Hypotheses* [Berkeley: University of California Press, 1942]) and Richard McKeon (in some of the essays in *Thought, Action and Passion* [Chicago: University of Chicago Press, 1974]) set forth various schemata of systematic pluralism. While they recognize that each system has a distinctive understanding of the external relations that obtain among the various systems, they present what they appear to take as a definitive map of maps.

in its language, its self-presentation in myths, songs, literature. In practice, that identity is expressed in its mode of life, its way of constructing the day and the year, occupations and relations of power, its way of marking continuities and discontinuities in the life-cycle. Although there is a strong tendency to assimilate the varieties of cultural pluralism, they are distinct from one another: confusion and sometimes harm can be done by coalescing them. Racial and ethnic differences can, but need not, carry other cultural differences with them; they can intersect both religious and national differences.

Cultural diversity often brings unexpected aesthetic richness, along with the kind of energy of invention that generally attends eclecticism. It also brings the sort of freedom—prized by some, feared by others—that allows individuals to migrate across subcultures, to escape what they regard as the repressions of their own origins. So it is possible for German-Scandinavians from the Midwest to go to New York to play the drums in African-American jazz groups, while yet retaining many of the habits and modes of thought of their Midwest origins, perhaps without recognizing them. Moving in the other direction, members of the urban professional middle class can attempt to become carpenters or small farmers in rural Vermont. But, as the most superficial reflection on pluralism in Northern Ireland or Azerbaijan makes vivid, cultural pluralism does not always bring greater adaptivity and freedom. In certain kinds of historical circumstances, it can bring fanaticism and devastation. In order to flourish rather than to fission, cultural pluralism requires special political circumstances.

Even when cultural differences are associated with differences in class and interests, the diversity of cultures need not reflect the kind of functional and psychological pluralism required by a complex society. The accidents that have brought the varieties of cultures to the United States—accidents of famine, war, intolerance—have blessed us with a rich diversity. But there is no particular reason to suppose that this diversity coincides with the range of various perspectives and talents—the values—that a culture faced with rapid change and highly diverse problems requires.

2) Demographic pluralism of age, gender, social role (eldest son, spouse), sometimes of urban/rural and other significant geographical differences typically brings differences in primary activities and orientations, and so also of values and priorities. In some societies,

demographic pluralism is marked and acknowledged. But in societies whose ideological self-presentation denies the significance of demographic distinctions, the political and social effects of demographic differences can be strong and highly ramified yet remain unacknowledged.

3) Interest pluralism demarcates distinctive and often opposed plans and policies. Like demographic pluralism and unlike cultural pluralism, distinctive interests interact in a presumptively unified field. They are often engaged in power struggles to define the directions of the field in which they coexist. Not surprisingly, interest pluralism often reflects differences of class and power, as they affect the control of decision-making processes. But interest pluralism can also arise from differences in occupation or profession. The interests that differentiate farmers, artists, and professional soldiers can, independently of their rank or power, generate disagreements over policies and priorities. Hume characterized this kind of pluralism as dangerously factional; he regarded partisanship as a threat to the operation of sympathy in developing common civic interests.⁶ Whether interest pluralism enhances or endangers civic life depends not only on the structure of the polity but also on the extent to which it reductively absorbs other forms of pluralism.⁷

4) Like interest pluralism, political pluralism exists within an interactive field in which distinctive quasi-independent groups struggle to define the configuration and direction of the system as a whole. Political pluralism often arises when interest pluralism is associated with distinctive moral views or with differences about what constitutes or conduces to the thriving of the polity.⁸ Disagreements about priorities can lead to different political and economic strategies, but sometimes such differences are empirical disagreements about the expected outcome of various policies. Even though the existence of multiple political parties is often itself politically significant, it is not necessarily a reliable indication of genuine political pluralism. On the one hand, differences among po-

⁶ David Hume, "Of the Coalition of Parties," "Of Parties in General."

⁷ *The Federalist Papers*, particularly nos. 44-46 and 49-51, present excellent analyses of the necessity—and the dangers—of the separation of interests and powers. While those debates are focused on Constitutional issues, the arguments are generalizable.

⁸ Cf. John Dewey, *The Public and its Problems* (New York: Henry Holt and Co., 1927).

litical parties are often only superficial; on the other hand, the existence of a single-party system can sometimes hide deep, systematic, and continuous intra-party divisions that are functionally equivalent to genuine political pluralism. To determine which form of political pluralism is actually in force, it is necessary to examine the ways in which policies are formed.

Political pluralism is of course not limited to party pluralism. It is also expressed in attempts to avoid the corruption of absolutism by the introduction of the separation of governmental powers and functions in a system of checks and balances.⁹ Recent debates about the independence of the judicial system reflect a concern that one form of political pluralism might be absorbed into another, that the division between the executive and judicial functions might become a direct but disguised expression of party division, and at worst of interest.¹⁰ It may well be naive to suppose that the decisions of the Supreme Court are independent of the ideological and political leanings of the justices, and so to some extent also of the executive branches that appointed them. But the illusions of a polity can make an important difference to its practices: the "illusion" of the independence of the judicial system affects the ratification of judicial nominations.

Most complex societies can be characterized by a palimpsest of independent but superimposed pluralistic fields. Sometimes distinctive pluralistic fields can affect and even magnetize one another.¹¹ A person's location in the field of cultural pluralism can affect her location in the field of interest pluralism, especially when subcultures are strongly associated with a specific economic class. Similarly, when demographic pluralism is strongly hierarchical, a person's location in the field of demographic pluralism can affect her place in the field of interest pluralism.

⁹ Cf. Alexis de Tocqueville, *Democracy in America*, vol. 2 (New York: Doubleday-Anchor, 1969).

¹⁰ Cf. Ronald Dworkin, *Law's Empire* (Cambridge, Mass.: Harvard University Press, 1986) and *A Matter of Principle* (Cambridge, Mass.: Harvard University Press, 1985).

¹¹ Cf. Ernest Gellner, "The Civil and the Sacred in Marxist, Muslim and Other Societies," *The Tanner Lectures*, Harvard University, 1990. Gellner argues that the absence of an active civil domain in Muslim and Marxist societies is to be explained by their having collapsed the varieties of pluralism on to a single plane.

5) Psychological pluralism arises in part from constitutional differences that affect psycho-physical temperaments, skills, and traits. It affects perceptual and categorial saliences and often promotes distinctive motivational structures.¹² Even when it is unacknowledged, psychological pluralism often exists in an interactive field, each type defining its orientation by a dynamic contrast to the others. The field of psychological pluralism can be cooperative or combative; it can become absorbed into interest pluralism. At its best, this is "team pluralism," the kind of variation and specialization of talent that gives a working team adaptability and strength in devising different kinds of strategies for different purposes. Like a good ruler, a good coach or manager knows how to deploy his players in such a way that each is engaged to do what he does best, in coordination with the others.

These are the sorts of differences that Plato and Aristotle had in mind when they distinguished a life focused on matters of honor from one focused on production or trade, differences that often become expressed in distinctive values and priorities.¹³ Over and above matters of personal intimacy and friendship, the kind of ethic that guides a person who is primarily directed to production and exchange is, on the whole, different from that which guides an artist or a soldier. At a basic action-forming level, the norms and priorities of a person primarily engaged in nurturing parenthood is different from that of a businessman. To be sure, it is possible to formulate general principles that span such regional differences. But those general principles, taken in themselves, are normally insufficient to generate specific policies and actions, and they do not adequately reflect the nuance of the issues that genuinely divide distinctive mentalities and that can bring them into serious conflict. In any case, distinctive perspectives standardly disagree about detailed interpretations of the general principles on which they allegedly (nominally) agree. Psychological pluralism is, for that reason, best

¹² Cf. Amelie Rorty and David Wong, "Aspects of Identity and Agency," in Owen Flanagan and Amelie Rorty, eds., *Identity, Character and Morality* (Cambridge, Mass.: MIT Press, 1990) and Howard Gardner, *Frames of Mind* (New York: Basic Books, 1983).

¹³ Recent debates about the essentialism of gender differences can be seen as focused on the question of whether demographic pluralism entails psycho-physical pluralism, and whether psycho-physical pluralism in turn entails interest pluralism; cf. Alison Jaggar, *Feminist Politics and Human Nature* (Totowa, N.J.: Rowman and Allanheld, 1983).

coordinated on the model of agreement in practice rather than agreement on theory.

6) Intellectual pluralism validates distinctive explanatory systems without necessarily treating them as competitors for truth claims.¹⁴ Although most intellectual systems are—or at any rate, present themselves as—logically independent of their predecessors, they are generally strongly affected by them and by their contemporary critics. Ambitious intellectual systems are eclectic, each attempting to incorporate the benefits of views of their competitors. They are partially individuated by their relations to one another, by the details of their denials and debts.

Like political pluralism, intellectual pluralism is compatible with the existence of a general schema that maps radically distinctive systems in a single frame. Historicists can, for instance, be committed to tracing the variables that explain the distinctive points of view. Such explanatory systems can be relativistic, but need not. They can legitimize the plurality of distinctive intellectual systems, yet rank them in an order of importance, dependence, or progress. But intellectual pluralism can be regional rather than systematic. It need not contrast competing world views, total systems of thought. Scientific pluralism can raise serious questions about the program of the unity of the sciences.¹⁵ Or it can move towards the kind of aestheticism described by Kierkegaard, an aestheticism that does not attempt to systematize the patterns of distinctive points of view, but simply delights in sampling one fragment after another.¹⁶ Even religions that resist any form of syncretistic pluralism can nevertheless be hospitable to pluralism in literary theory or science, without attempting to subsume these within a general religious system.

¹⁴ Some anthropologists (Lévi-Strauss and his descendants) analyze cultural pluralism as a form of intellectual pluralism: they attempt to formulate the whole range of a culture's practices in cognitive terms, tracing the assumptions of practices and treating them as beliefs that are often expressed in symbolic terms.

¹⁵ Cf. Thomas Kuhn, *The Structure of Scientific Revolutions* (Chicago: The University of Chicago Press, 1962).

¹⁶ In *Either/Or* and *Stages on Life's Way* Kierkegaard takes Don Juan as the prime example of an aesthetic person, someone who is enraptured by one project or thought after another, someone who sees things from many points of view, without comparative evaluations, not committing himself to live fully or steadfastly by any one of them.

At its best, when it is respectful and cooperative, intellectual pluralism has the advantages that Mill analyzed in *On Liberty*: distinctive critical voices, raising questions from different points of view, provide an excellent correction to the dogmatism of narrow perspectives. When the multiplicity of positions is given voice, pluralism can provide a correction to perspectival entrenchment.¹⁷ The plurality of perspectives forces the clarification and articulation of each position, moving vagueness towards precision. When intellectual pluralism coincides with interest pluralism, however, constructive debate can be replaced by the rhetorical combat of power politics. Presumably this is the reason that Mill and other liberals stress the necessity of rational debate, which is, as they see it, a debate among educated participants of good will. Not surprisingly, there is considerable disagreement about what constitutes good will and when it has lapsed, when rational inquiry has degenerated into power politics.

Like many liberals, Mill takes scientific inquiry as the model for political debate, projecting an ideal convergence in belief. But he also provides us with some excellent grounds for introducing another model for pluralism, one that projects cooperative practical complementarity independently of intellectual agreement. When the common welfare is served, there are sound utilitarian arguments for retaining practical pluralism without pressing for intellectual consensus.

7) Pluralism of principle validates and endorses distinctive and competing ideals and principles, virtues and values. Some societies—particularly those with a strong and homogeneous religious orientation—have a high degree of consensus on the direction and measure of basic norms and values. But most contemporary western European societies are hospitable to pluralism of principle: the basic values that implicitly guide the conduct and aspirations of their members vary considerably, not always along cultural or religious lines.

Moral pluralism can in principle be explicated by intellectual pluralism that treats distinctive moral systems as if they were theories about the good or about justice. A group's moral principles

¹⁷ Cf. Bruce Ackerman, *Social Justice in the Liberal State* (New Haven: Yale University Press, 1980).

and values can be characterized, articulated by traditional moral theories, as specific hybrids of Aristotelian, Kantian, utilitarian, Nietzschean, or other theories.¹⁸ But because moral theories are essentially practical in their orientation—because they are directed to the realization of values through action and activity—attempting to translate the practical orientation of moral pluralism into intellectual pluralism runs the danger of missing the point of moral theories: to affect practice. Although moral theory aims at truth, at attempting to formulate the ideals or principles that should direct human activity, it does so for the sake of affecting action and practice. Moral theories are, in this way, two-faced: they articulate and express practices while also attempting to direct or redirect them, attempting to form agents with specific perceptual and categorial saliences, motivational structures, virtues and values.

Most systems of morality are directed towards producing a certain kind of person with a specific sort of mentality and mode of action. By and large morality is thought of as requiring a transformative process that affects virtually the whole of a person's character. Not only ideals, motives, and actions, but also perception and imagination, the categorial frames that delineate experience, are morally relevant. Moral systems presuppose a general psychological theory of the structure of premoral agency, a theory about standard basic motives and aspirations, about the relation between rationality and desire, about the role of imagination in choice. Indeed this is one fruitful way of characterizing the differences among the major traditional theories, by distinguishing their views about the raw materials with which morality begins, the transformative processes of moral development and the desired outcome, a particular kind of mentality that is presumed to affect the whole of a person's agency. Aristotelians see this process as primarily involving the harmonious fulfillment of the person's best natural potentialities. Utilitarians see it as involving the rational direction and redirection of desires towards their most complete satisfaction. Stoics and such neo-Stoics as Kant see morality as involving the subsumption or direction of thought and action by the requirements of rationality. Hume sees it as involving the development and

¹⁸ Cf. Richard Brandt, *Hopi Ethics* (Chicago: The University of Chicago Press, 1954) and John Ladd, *The Structure of a Moral Code* (Cambridge, Mass.: Harvard University Press, 1957).

refinement of the social sentiments, particularly the sense of justice. Nietzsche contrasts the fearful and repressive morality of the herd with that of the free self-creating individual.

The political importance of moral pluralism emerges from the recognition that (1) the functional pluralism that is required by a complex polity rests on a soundly developed psychological pluralism, and (2) psychological pluralism carries practical moral pluralism in its wake. A soundly functioning political system requires both intellectual and practical moral pluralism. It requires intellectual moral pluralism for continuous critical inquiry, particularly under changing social conditions. It requires practical moral pluralism to represent psychological and functional diversity.

III

Assuring the continuity of practical moral pluralism sets serious problems for social and political institutions. Most contemporary moral theorists have concentrated on describing the ideal final product of the transformative processes of morality. With some exceptions, they have neglected the analysis of the processes and institutions of moral education. Presumably this neglect is a function of the liberal decision to leave substantive moral education to the private sphere. Little attention is given to the development of a soundly functioning psychological and moral pluralism, and to the kinds of social and political, formal and informal institutions that are engaged in these processes. What is central to the life of a polity—the structuring of the character of its citizens—is left to chance of culture, to religion, domesticity, or the self-forming and self-reforming struggles of individuals.

We can distinguish four types of political solutions to the problems of coordinating the varieties of pluralism, of developing an appropriate form of moral pluralism:

1) Strong communitarians argue that a polity must educate and foster shared values and goals.¹⁹ Although distinctive functional subgroups are likely to emphasize different values, they agree

¹⁹ Cf. Alasdair MacIntyre, *Whose Justice? Which Rationality?* (Notre Dame: University of Notre Dame Press, 1988), esp. pp. 349–403.

on how to map the priorities accorded to their competing claims and voices in decision-making. Melting pot policies like those fostered during the peak periods of immigration to the United States attempted to promote cultural unity, presumably because of the fear that diversity might jeopardize the political processes. Interestingly, it is precisely such large and culturally diverse nation-states as the Soviet Union and the People's Republic of China that become obsessed with monistic ideology.²⁰ Such nations might well fear that the coincidence of cultural and geopolitical pluralism could engender explosive interest diversity.

Strong communitarianism runs obvious dangers. If it carries unification down to particular policies and actions, it jeopardizes the kinds of pluralism that are necessary for a critically reflective and adaptive complex polity. If, on the other hand, the unifying principles remain merely formulaic and general, all the detailed problems of developing and coordinating distinctive mentalities remain.

2) Liberals argue that communitarian education endangers the benefits of pluralism, that it tends to become damagingly paternalistic, not to say totalitarian. Rather than positing agreement about general values, liberals posit agreement about fair procedural principles that regulate rational debate. Like communitarians, however, most liberals model agreement about procedural principles on intellectual or scientific agreement.²¹ The rules that govern debate are in principle acceptable to all parties because they are seen as impartial, rational, or just, with an initial presumption of mutual respect or at least non-interference.

Liberals like Rawls and Habermas acknowledge that their approach is, in the very nature of the case, incomplete. Precisely because liberalism stresses political neutrality on issues that divide conceptions of the good, it leaves the determination of the directions of specific goods and virtues to the social or private domain. Only those goods and virtues that might affect the possibility of justice in a pluralistic state fall to political determination. But the line

²⁰ A similar concern might lead religions that encompass demographically and culturally diverse populations (Roman Catholicism and Muslim Fundamentalism, for example) to become centrally concerned with assuring the credal unity of their adherents.

²¹ Cf. Jürgen Habermas, *The Theory of Communicative Action* (Boston: Beacon Press, 1984).

between neutral political procedures and social or private substantive directions cannot be so readily drawn, particularly in those public institutions—museums, the mass media, and the public schools—where pluralism is developed and coordinated. It is unrealistic, and probably undesirable, to limit the kind of moral formation that occurs in public schools to those values about which there is consensus, or to those virtues which are required for the preservation of liberal values. Conservatives and radicals alike recognize that the minutiae of ordinary life—the ways we acknowledge or fail to acknowledge one another by our attention, demeanor, tones of voice—are profoundly political.

Moreover, liberals disagree among themselves about the conditions that mark a just and pluralistic liberal state, and about the proper analysis of such basic virtues as respect and honesty. Presumably one of the advantages of liberalism is that all such issues are open to public debate. But assuring that such debate is open and fair, that each voice receives a just hearing, already presupposes the existence of just institutions. In attempting to resolve the tensions of pluralism, the liberal solution appears to bypass or even replace the *Realpolitik* of might and power with an analysis of the conditions for rational and just procedures. Unfortunately, it does so only by staying at a very general theoretical level. All the problems of power politics return full force at the level of practical application. Many of us who are not, for familiar reasons, content with the Platonic solution are nevertheless also skeptical about whether the liberal solution is sufficient to assure just arrangements in a seriously pluralistic polity. The liberal solution seems to presuppose the very kinds of citizens and social practices that it is meant to produce and that are required for its success.

While liberalism might, under the best conditions, foster the development of certain civic virtues of mutual respect and toleration, it leaves the development of the vast range of moral virtues and values to families acting as mediating agents for religious or ethnic subcultures. Cultural pluralism can in principle reproduce itself without direct political or public intervention. Interest and political pluralism do not need to reproduce themselves: although they depend on well-formed political institutions for their free and appropriate expression, they tend to arise naturally from circumstance, without requiring special institutions for their reproduction across generations. If there is a concern, it is that the secondary institutions

around such groups take on a life of their own, remaining in place even after primary interests are no longer operative.

But liberalism cannot by itself assure the continuity of a soundly functioning psychological and moral pluralism. Liberals tend to assume that cultural and interest pluralism will assure the range of traits and values, the psychological and moral pluralism that a polity requires. In principle, cultural and demographic pluralism can be counted on to reproduce themselves. But effectively developed psychological and moral pluralism cannot reproduce itself without some intervention. While the natural genetic lottery normally produces a wide range of psycho-physical types, the development of the skills and talents, and sometimes of the mentality, that is the best expression of those types requires a sound system of education. Psychological and moral pluralism are too important to be left in the hands of the accidents of cultural pluralism, since they might work through the family and other institutions in the private sphere. The kind of moral education required to assure the continuity of practical pluralism bridges the private and public domains, the social and the political spheres. Civic virtues and values cannot be developed solely by a delicate combination of public political liberalism and some combination of cultural and interest pluralism. Their development requires the support of central educative and formative institutions, schools, the mass media, sports, and the arts. Particularly in fragmented and mobile societies like ours, it is these institutions that not only influence but form a polity's moral mentality, the range of its virtues and values. They form—and should form—habits that go far beyond the requirements of liberal respect.

Vigorous ethnic, religious, and cultural pluralism can, to be sure, help keep us honest. Any pluralism that issues in serious discussion serves as a bulwark against perspectival dogmatism. But not even the best, most subtle conversation can develop the plurality of habits, talents, and skills that we require. Richness of mind, even richness of mind that recognizes and respects its complementary voices, does not assure pluralism of the bones and muscles. The movement to habits of action as well as habits of mind is an essential step, for even though habitual action begins in perception and language, the development of habits are still necessary.

How can liberalism go beyond assuring the conditions for polyphonic conversation, to assuring the formation and reproduction of practical psychological and moral pluralism, the development of

distinctive types of people as well as distinctive types of views and languages?²²

3) A "checks and balances" system can—without falling into the dangers of Platonic control—supplement liberalism by introducing pluralistic moral education in public institutions. It acknowledges the necessity of civic activity in developing psychological and moral pluralism, not only by teaching the varieties of moral theories, but by actively promoting the kinds of habits which are the practical realization of those theories. A system of checks and balances concedes the Platonic view that morality requires civic participation in the development of a variety of character traits and habits. But it attempts to avoid the dangers of Platonism by using a system of checks and balances among educative institutions, including the arts and the mass media. Leaving liberal institutions intact, a system of checks and balances could introduce a wide range of moral ideals and practices into counter-poised educational institutions. In principle, the very plurality of moral perspectives would provide some check on the territorial ambitions of any one of them. The dangers that any particular mode of life—any particular set of moral ideals or virtues—might become dominant or excessive could be checked by empowering the plurality of positions in a carefully balanced system of oppositions. Setting one kind of pluralism against another in a system of dynamic equilibrium can under benign circumstances assure some external accountability and set constraints on the zealotry of any particular form of moral education. Continuous shifts in patterns of alliances often safeguard against the tyranny of the majority or the reductive coalescence of the varieties of pluralism.

A well-designed system of checks and balances can in principle combine some of the advantages of a communitarian polity with interest and functional pluralism.²³ It can, but need not, presuppose a shared, unambiguous understanding of common ends, as long as its institutions coordinate benefits to each group in a system of a dynamic equilibrium. The more fragmented and cross-categorized the varieties of moral pluralism, the greater the safety.

²² The metaphors of polyphony and the interanimation of languages were introduced and developed by M. M. Bakhtin, *The Dialogic Imagination* (Austin, Tex.: University of Texas Press, 1981).

²³ *The Federalist Papers* provide a helpful model for a kind of system of checks and balances among the dimensions of a pluralistic society.

4) The polyphonic or dialogic mode explored by Bakhtin encompasses but goes beyond the checks and balances mode.²⁴ The plurality of practical moral systems can not only constrain but also enhance one another, set phrases and phases for further development. Multiplicity is in itself valuable, not only for the liberal reason that debate is necessary for the discovery of truth, but because a multiplicity of modes of life expressed in habits and practices are necessary for any one of them to be sound life. Like its analogy in music, the improvisatory polyphonic mode achieves practical (rather than consensual) harmony by allowing each voice its distinctive and interactive development. Each voice articulates and develops its thematic contribution in response to the others, becoming further individuated by the interactive process.

This kind of improvisatory polyphonic interanimation can be conversational or reflective. Agreement in practice need not depend on intellectual agreement, even when there is a theoretical explanation of the consensual process. Just as good improvisatory polyphonic music does not require a shared understanding of musicology, so too good practical interactive moral polyphony need not presuppose agreement on theory or on procedural principles. Indeed, agreement on theory or procedures sometimes emerges from cooperative practices.²⁵

Until it is made specific, however, the characterization of polyphonic modes of moral education remains at the level of vapid metaphor. We might well take the range of traditional moral theories as our starting point, describing the ideal or model agent that each view would project. A sound polity requires a goodly range of all of these types—a Kantian to insist on difficult issues of justice, a utilitarian to press for improvement in general welfare, an Aristotelian to stress excellence and nobility as constitutive of welfare, a Humean to emphasize the social virtues of civility, a free-spirited Nietzschean to set aside the constrictions of conventional morality for the sake of exuberant creativity. We need to understand how each of those mentalities and modes of life are formed and developed: In what terms do they perceive and categorize their experience? What are their characteristic preoccupations and activities? How

²⁴ M. M. Bakhtin, *The Dialogic Imagination*.

²⁵ Cf. Hume's account of the development of justice from cooperative practices in *A Treatise on Human Nature*, II.II.

do they regulate their actions? What are their relations to their spouses, friends, fellow citizens, parents, and children? What are the premoral materials from which moral character is built? Does the moral person act against—or with—the grain of the original material? How do moral agents deal with what appear to be moral conflicts? How do they respond to works of art, to the natural environment? What is the phenomenology of the moral life of an Aristotelian *phronimos*, a Kantian person of good will, a Humean, a utilitarian, a Nietzschean free spirit? What is the primary focus of that education? How is the appropriate balance between (various conceptions of) rationality, the imagination, and the emotions conceived, and how is that balance developed? Do the very processes of moral education leave their traces on the adult moral agent? Who are the primary agents in moral development: parents, peers, poets, political structures? How can the range of educational institutions promote the development of the varieties of moral mentalities in a dynamic system of checks and balances, “weaving them together” in improvisatory polyphonic practices, rather than in a Platonic republic?

But in a society that resists it, even the best and most detailed descriptions of the political strategies for coordinating the varieties of pluralism far underdescribe the processes required to produce a sound working pluralism. Consider the difference between the Federalist Papers and the Constitution of the United States on the one hand, and the minutiae of formal and informal discussions, the political and charismatic influence that was required to pass and ratify the Constitution. Even if we could give a full account of a working system of checks and balances, even if we could make the metaphors of polyphonic pluralism sufficiently precise to serve as a method for producing it, we would not have an account of the processes necessary to persuade a recalcitrant political system to adopt a constructive pluralism. However precisely and elegantly the political and educative conditions for a constructive pluralism are formulated, they do not reveal the processes that are required to institute them. The issues that arise in developing a pluralistic polity are more difficult and profound than the familiar problems that arise from the application of general rules to particular contexts.

Sometimes political conditions make the constructive coordination of the varieties of pluralism difficult if not actually impossible to achieve. This is most likely to occur when the varieties of pluralism

lose their independence and collapse reductively, so that individual and group identifications along one set of parameters determine their identifications along other dimensions. This happens when, for example, a group's religious identity fuses with their demographic and cultural identity, in such a way as to define their economic and even political interests. (The closure of pluralism in Northern Ireland, or between the Azerbajian and Armenian populations in the Soviet Union provide examples of the ways in which the collapsed reduction of pluralism proves obdurate to transformation.) Committed as we philosophers are to the dominant power of rationality, it is difficult for us to recognize that even the clearest understanding of the conditions for a constructive polity does not begin to define the processes that are required to persuade it to move towards realizing them. Even purely philosophic tasks are constrained by contingent circumstances: the political processes that must be engaged to effect political reform set limits on the analysis of political ideals. If *ought* implies *can*, then political ideals cannot be specified independently of political realities.²⁶

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²⁶ An early version of this paper was delivered at a conference on Philosophy and American Culture organized by David Depew at California State University at Fullerton. I am grateful to him and Eugene Garver for stimulating suggestions.

THE SCOPE OF DELIBERATION: A CONFLICT IN AQUINAS

T. H. IRWIN

I

IT HAS OFTEN BEEN SUPPOSED that Aristotle's account of thought and action imposes severe limits on the functions and scope of practical reason; and insofar as Thomas Aquinas accepts Aristotle's account, he seems to be forced into the same restrictive view of practical reason. Practical reason expresses itself primarily in deliberation (*bouleusis*; *consilium*);¹ and the virtue that uses practical reason correctly is the deliberative virtue of prudence (*phronēsis*; *prudentia*). Aristotle believes that deliberation is confined to means to ends, while will (*boulēsis*; *voluntas*) is focused on ends. Some ends that are assumed on some occasions may on other occasions also count as means to more ultimate ends; but it seems that the most ultimate ends must be taken for granted in any deliberation. Since every deliberation must take for granted some end to which the deliberation finds means, the conclusions of rational deliberation must ultimately be about means to ultimate ends that are not themselves subject to practical reason.

This general problem about Aristotle has often been discussed.² Three main types of reply have been tried: (1) We may argue on

¹ I give the normal equivalents in Aquinas's Latin. In this paper I use the English renderings that are most convenient in discussing Aquinas, which are not always the best for translating Aristotle.

² I have discussed the problems in "Aristotle on Reason, Desire, and Virtue," *Journal of Philosophy* 72 (1975): 567-78, and in "First Principles in Aristotle's Ethics," *Midwest Studies in Philosophy* 3 (1978): 252-72. Further discussion will be found in J. M. Cooper, *Reason and Human Good in Aristotle* (Cambridge, Mass.: Harvard University Press, 1975), chs. 1-2; in N. O. Dahl, *Practical Reason, Aristotle, and Weakness of the Will* (Minneapolis: University of Minnesota Press, 1984), Part 1; and in the essays by Ackrill ("Aristotle on Eudaimonia"), Wiggins, Sorabji, and McDowell in *Essays on Aristotle's Ethics*, ed. Amelie O. Rorty (Berkeley: University

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Aristotle's behalf that practical reason has some nondeliberative route to the right choice of ends, and hence that the severe limits on deliberation do not imply equally severe limits on practical reason. (2) We may argue that deliberation has a broader scope than we might think, because "means to ends" has a broader scope than we might initially suppose. Since "means" may include parts, components, and specifications of an end, and not simply instrumental means to it, deliberation may explain the rational choice of something as an end to be chosen for its own sake as a component of some further end.³ (3) We may conclude that Aristotle does not after all attribute any function to practical reason in the choice of ends.

For present purposes I want to set aside the third, "anti-rationalist" solution. I will concentrate on the two "rationalist" solutions, to examine the different accounts they offer of the role of practical reason in relation to ends. The two rationalist solutions are neither exclusive nor exhaustive options, and different versions of each solution deserve consideration. Still, interpreters often, and quite reasonably, tend to choose between them. For if we recognize nondeliberative practical reason, we will not be too disturbed if deliberation has a narrow scope; and, on the other hand, if we allow a wide scope to deliberation, we will be less inclined to look for some nondeliberative exercise of practical reason about ends.

In any case, these options provide a starting point for the questions I want to examine in Aquinas. For I want to claim that (a) sometimes Aquinas accepts the first rationalist solution and rejects the second, but (b) sometimes he commits himself to the second solution. Hence Aquinas's views seem to contain some conflict, resulting from his failure to articulate a part of the Aristotelian position that he nonetheless must accept; for if he had articulated Aristotle's position clearly, he would have had to abandon or modify some of his other claims.

of California Press, 1980). A recent dissenter from views assigning a wide scope to deliberation is R. Kraut, *Aristotle on the Human Good* (Princeton: Princeton University Review, 1989), pp. 200–17. See my review forthcoming in *Ethics*, October 1990.

³ Sometimes the extended conception of deliberation is expressed by saying that Aristotle's phrase "ta pros to telos" (in Aquinas, "ea quae sunt ad finem") is not confined to means to ends. For convenience, I will instead use "means" in an artificially broad sense, so that these other relations to an end also count as determining means to the end.

I am not sure that this is a genuine conflict in Aquinas; as I will try to explain later, a better interpretation of his views might show that I have overlooked some distinctions that make them all consistent. If that is so, then perhaps the objections I raise will make it easier to find a better interpretation and a better defense of his views.

II

Aquinas agrees with Aristotle's claim that thought by itself moves nothing, and that in order to initiate motion it must be "thought for the sake of some end" (*Nicomachean Ethics* [EN] 1139a35-6). Aristotle believes that this goal-directed, thought-initiating action requires the presence of desire. Aquinas expresses this point in his assertion that our cognitive capacity does not move us without desire as intermediary.⁴

Nonetheless, Aquinas claims—more explicitly than Aristotle ever does—that intellect initiates motion. He asks (*ST* I, q. 82, a. 4) whether the intellect moves the will or the will the intellect. He answers that the intellect moves the will as final cause, but the will moves the intellect as efficient cause. He plausibly suggests that if there is a question about whether the will or the intellect is the mover (as Aristotle sometimes frames the question), there cannot be an unqualified answer. In his view, we are wrong if we suppose that they could be movers of the same sort; and therefore he denies that they are rivals for one position. The intellect moves the will by presenting the object of will, and thereby "directing" (*ordinare*) the will, "that is to say, in so far as the will tends towards its object in accordance with the order of reason, by the fact that the power of apprehending presents the power of desiring with its object" (*ST* I-IIae, q. 13, a. 1).⁵

Intellect is prior to will and independent of it, for it does not need to be moved by the will, whereas the will needs to be moved by some cognitive capacity (*ST* I, q. 82, a. 4, ad 3). If each capacity

⁴ Vis cognitiva non movet nisi mediante appetitiva, *Summa Theologiae* (*ST*) I, ed. P. Caramello (Turin: Marietti, 1952), q. 20, art. 1, ad 1.

⁵ Hence the intellect moves through desire: *ST* I, q. 76, a. 1. See also *In De Anima* #824.

had to be moved by the other, then there would be an infinite regress. The threat of this regress is halted once we recognize that the intellect operates independently of the will and initiates the motions of the will. It does not operate, however, by "commanding" (*imperare*), which is an act of reason presupposing an act of the will (*ST* I-IIae, q. 17, a. 1). Intellect neither commands the will nor commands the other parts of the soul or body independently of the will; nor, on the other hand, is it commanded by the will, but it is a prerequisite for the will's giving any commands (*ST* I-IIae, q. 9, a. 1).

Since, therefore, Aquinas believes that the intellect moves the will, he has to face Aristotle's apparent restriction on the role of practical intellect in relation to ends, and explain how it can nonetheless move the will here as well.

III

Aristotle's treatment of moral virtue and prudence seems to raise a difficulty for Aquinas, for Aristotle thinks that the practical intellect operates through the intellectual virtue of prudence, and that prudence is concerned with means to ends, so that (according to Aquinas) it does not itself prescribe the ends for moral virtue.⁶ Prudence presupposes the moral virtues, which turn us towards the right ends (*ST* I-IIae, q. 58, a. 5); that is why there can be no prudence without the moral virtues. The ends for the moral virtues, however, are fixed (*determinati*, *ST* II-IIae, q. 51, a. 15) and are the objects of our natural inclination (*ST* I-IIae, q. 51, a. 1; q. 63, a. 1).

This restricted role for practical reason is difficult to avoid, if one focuses on Aristotle's claim that the virtue of practical intellect is the deliberative virtue of prudence and if one also accepts a narrow conception of deliberation. If deliberation about means to ends is confined to instrumental means and so cannot form our conception of our ends, then prudence cannot form our conception of our ends.

In the light of this narrow conception of deliberation, Aquinas

⁶ See *ST* I, q. 22, a. 1, ad 3; q. 23, a. 4; q. 113, a. 1, ad 2; I-IIae, q. 57, a. 5; II-IIae, q. 47, a. 6; q. 56, a. 1.

seeks to explain the passages where Aristotle claims that moral virtue is concerned with ends, and prudence with means to ends (*EN* 1144a6-9 and 20-2, 1145a5-6, 1178a16-19).⁷ Aquinas takes these passages to mean something that Aristotle does not say, but might understandably be taken to imply—that prudence has no role in determining the right end. And so he tries to answer the question that Aristotle does not answer: if prudence does not determine the right end, what rational state does determine it?

Since deliberation does not seem to form our conception of the ends, Aquinas turns to a nondeliberative function of practical intellect. He thinks there must be such a function parallel to the function of theoretical intellect in grasping first principles. Theoretical intellect grasps the first principles of theoretical sciences intuitively, without any further inferential justification; and Aquinas thinks this intuitive grasp of first principles must have a practical counterpart.

The practical principles that guide our natural inclination are naturally known, like the first principles of theoretical sciences (*ST* I-IIae, q. 63, a. 1; II-IIae, q. 47, a. 6); and the special faculty that knows practical principles is synderesis (*ST* I, q. 79, a. 12).⁸ While synderesis is a topic of discussion in medieval philosophy independently of reflection on Aristotle, Aquinas tries to connect it with Aristotle insofar as he identifies synderesis with the Aristotelian intellect grasping first principles:

... so also in practical reason some things preexist as principles naturally known; and of this sort are the ends of the moral virtues, because the end in things to be done is related as the principle is in theoretical matters, as was said above. . . . And thus it does not belong to prudence to fix the end for the moral virtues, but only to arrange about the means to the end. (*ST* II-IIae, q. 47, a. 6)

What fixes the end for the moral virtues is the natural virtue in the natural reason which is called synderesis. (*ST* II-IIae, q. 47, a. 6, ad 1)

⁷ Aquinas quotes 1144a6-9 at *ST* II-IIae, q. 47, a. 6, sed c.

⁸ On synderesis (perhaps to be translated "observance"; see *Patristic Greek Lexicon*, ed. G. W. H. Lampe [Oxford: Oxford University Press, 1961], s.v. "sunterêsis," #2), see O. Lottin, *Psychologie et morale aux XIIe et XIIIe siècles*, vol. 2 (Gembloux: Duculot, 1948), 103; T. C. Potts, *Conscience in Mediaeval Philosophy* (Cambridge: Cambridge University Press, 1980), 10.

Aquinas believes that Aristotle himself recognizes this function for practical intellect.⁹ But in speaking of synderesis he assigns it a specific content that he does not claim to derive from Aristotle.

Synderesis grasps the first principles of natural law, which, in Aquinas's view, are known to everyone.¹⁰ If we assign this role to practical intellect, then we can claim that it moves the will. For practical intellect is prior to the desire for the end, insofar as the apprehension precedes the desire (*ST I-IIae*, q. 58, a. 5, ad 1), but the desire for the end precedes the election (*prohairesis*; *electio*) of the means, which is the special concern of prudence. Virtue is focused on the right end, not because of prudence, but because of a distinct nondeliberative intellectual state that grasps the right ends, and this is synderesis. The sorts of truths that concern synderesis are sharply contrasted with those that concern prudence, for the right ends of human life are "fixed" or "definite" (*ST II-IIae*, q. 47, a. 15), whereas the means to these ends are not fixed, and hence are subject to the deliberative virtue of prudence.¹¹

These claims constitute a rather strong statement of a rationalist solution to the Aristotelian problem about practical reason,

⁹ Aquinas is in fact quite cautious about attributing a conception of synderesis to Aristotle. He ascribes it to Aristotle at *In De Anima* #826-7, to explain what Aristotle means by saying that all intellect is correct, *De Anima* 433a26. Here he follows a tradition of citing this Aristotelian remark in support of the infallibility of synderesis, even among philosophers who do not try to connect synderesis any more systematically with Aristotle; for earlier evidence see Lottin, *Psychologie et Morale*, vol. 2, pp. 132, 167. Aquinas seems to identify synderesis with Aristotelian practical intellect at *In III Sent.*, dist. 33, q. 2, a. 4, sol. 4: "Unde sicut in ratione speculativa sunt innata principia demonstrativa, ita in ratione practica sunt innati fines connaturales homini, sicut synderesis, loco cuius Philosophus in VI *Ethic.*, cap. III, ponit intellectum in operativis. Relinquitur igitur quod prudentia sit in ratione practica secundum quod negotiatur de illis quae sunt ad finem."

Aquinas says nothing, however, in support of this interpretation of Aristotle in his commentary on the relevant part of the *Nicomachean Ethics*. Nor does he suggest this interpretation of Aristotle's remarks about practical intellect at *EN* 1143a35-b5; see *In EN* #1247.

¹⁰ See *De Veritate*, ed. R. Spiazzi (Turin: Marietti, 1964), q. 16, a. 1: "Sicut autem animae humanae est quidam habitus naturalis quo principia speculativarum scientiarum cognoscit, quem vocamus intellectum principiorum; ita in ipsa est quidam habitus naturalis primorum principiorum operabilium, quae sunt naturalia principia iuris naturalis; qui quidem habitus ad synderesim pertinet." On the uniformity of the natural law see *ST I-IIae*, q. 94, a. 4. Clearly these principles are not known to everyone

as they seem to suggest that first principles are a matter of knowledge and reason. To say that they are grasped by reason, however, is not to say that they have any further rational justification; Aquinas seems to suggest that the ends are "built-in"; we just see that they are the correct ones, without any further argument or ground.¹²

If Aquinas appeals to synderesis in order to explain how virtue makes the end right, then he must appeal to it to explain the crucial difference between virtue and vice. Virtuous people differ from vicious in that they aim correctly at the end.¹³ Since this correct aim cannot be the product of prudence, it must be the product of synderesis. Moreover, if the correct aim is not the product of prudence, it cannot be the product of deliberation, for if it were the product of deliberation, it would be about means to the end, and so would be after all the proper concern of prudence.

Aquinas's interpretation of Aristotle's claims about virtue and prudence leads him to conclude that the virtuous and the vicious person differ fundamentally in some nondeliberative aspect of their practical intellect, since no deliberative aspect of it could explain why the virtuous person aims at the correct ends.

This seems to be Aquinas's point when he explains how prudence presupposes the right end that is recognized by synderesis and thereby fixed for the moral virtues:

This very thing that is being conformed to correct reason is the proper end of each moral virtue. For temperance aims at [*intendit*] this, namely that a human being should not deviate from reason because of appetites; and similarly (the aim of) bravery is that a human being

equally clearly or explicitly, and I have ignored this sort of difference between different people in my remarks about synderesis. I do not think an appeal to different degrees of explicitness will remove the difficulties for Aquinas that I try to raise below.

¹¹ See *ST* II-IIae, q. 47, a. 15: "sed ea quae sunt ad finem in rebus humanis non sunt determinata."

¹² On the infallibility of synderesis see *De Ver.*, q. 16, a. 2: "Unde et in operibus humanis, ad hoc quod in eis aliqua rectitudo esse possit, oportet esse aliquod principium permanens, quod rectitudinem immutabilem habeat, ad quod omnia opera examinantur; ita quod illud principium permanens omni malo resistat, et omni bono assentiat. Et hoc est synderesis, cuius officium est remurmurare malo, et inclinare ad bonum."

¹³ In Aquinas's terms, virtue has the correct *intentio* towards the end. See *In EN* #1273; "cum virtus moralis faciat rectam intentionem finis" (cf. 1269). On *intentio* as aiming at the end rather than the means, see *ST* I-IIae, q. 12, a. 4.

should not deviate from the correct judgment of reason because of fear or rashness. And this end is fixed for a human being in accordance with natural reason; for natural reason instructs each person to act in accordance with reason. (*ST* II-IIae, q. 47, a. 7)

The point seems to be that there is some end that (i) is characteristic of the virtuous in contrast to the vicious person, (ii) is not itself the product of deliberation, and (iii) is the starting point for prudence and deliberation. And Aquinas believes that there is some end meeting all these three conditions because he assumes that deliberation is confined to the choice of "means to ends" in a sense that excludes the choice of ends of the sort that distinguish virtue from vice.

IV

I now want to explain why this restricted role for deliberation raises serious difficulties for some of Aquinas's other views. First, I want to display a relatively local conflict in his views about prudence and virtue, to show that he sometimes assumes a wider role for deliberation. Next, I want to display a broader conflict, to show that his views on free choice assume this wider role.

First, the role of prudence in the moral virtues seems, despite what I have said previously, to require a wide scope for prudence. Aquinas follows Aristotle not only in claiming that prudence requires the moral virtues (*ST* I-IIae, q. 57, a. 4; q. 58, a. 3; a. 5), but also in claiming that they require prudence (q. 57, a. 5; q. 58, a. 4). His reason for the second claim is Aristotelian. Moral virtue requires not only the right action, but also the right way of doing it. The right way of doing it must proceed from reason, not only from impulse or passion ("non solum ex impetu aut passione," q. 57, a. 5), and to proceed from reason it must proceed from correct election. Correct election focuses on the right means to the end pursued by moral virtue (q. 58, a. 4). But what sorts of "means" can these be?

If the correct election were concerned with relatively low-level, technical choices, it would be difficult to see why it should be a necessary condition for virtue; we would be claiming that agents who know the right sorts of things to pursue but just lack the causal information needed to find them cannot be virtuous.

This cannot be Aquinas's intention. For when he claims that virtue requires correct election, as opposed to impulse or passion, he must mean that reason produces the appropriate motive for choosing the virtuous action—we do the generous action, say, for the right reason, and not simply because we have a generous impulse (*ST I-IIae*, q. 77, a. 6, ad 2). Now the distinctive feature of the right reason (cf. q. 55, a. 1; q. 19, a. 7, ad 2) is not that the right reason rests on correct causal information, but that the person acting on the right reason cares about the appropriate aspect of the virtuous action. The person who does the generous action for the right motive is not distinguished primarily by the fact that, say, she correctly believes that the generous action will have precisely this effect on the other person, but by the fact that she has some settled conviction about the value of this sort of action and she acts on that conviction.

Such a settled conviction expresses the agent's conception of the ends worth pursuing, not simply her views about the most effective way to reach the ends she has set herself. We must take Aquinas this way if we are to make sense of his claim that prudence is required for the perfection of the sort of reason that is involved in election, and so is essential for moral virtue (*ST I-IIae*, q. 58, a. 4, ad 1).

Moreover, Aquinas does not always suggest that desire is moved by reason only insofar as it is moved by the nondeliberative reason that apprehends the end. For he argues:

... the motion of virtue has its origin in reason and its terminus in desire, in so far as it is moved by reason. That is why in the definition of moral virtue it is said, in *Ethics* ii, that it is "a state involving election, consisting in a mean that is determined by reason, as the wise person will determine it." (*ST I-IIae*, q. 59, a. 1)¹⁴

Aquinas cites the connection between virtue, election, and prudence to explain the role of reason in determining desire; he does not suggest that desire is determined by reason only in so far as desire is determined by the nondeliberative grasp of ends.

If, then, we think at all carefully about Aquinas's reasons for believing that moral virtue requires correct election, we can hardly suppose that his standard formula—attributing the inclination to-

¹⁴ The Latin version uses *sapiens* to translate *phronimos* here. But Aquinas clearly takes it to refer to prudence (see *In EN* #323).

wards the right ends to virtue and the choice of the right means to prudence—conveys his reasons very well. This formula irresistibly suggests that the correct inclination comes from something independent of prudence, and that prudence adds something at a lower level than one's conception of the ends. But that suggestion cannot be right, for the correct election of the virtuous person rests on a true conception of the ends worth pursuing, and this conception is derived from prudence.

V

I have tried to explain why Aquinas's conception of the role of prudence conflicts with his claim that our conception of the right ends to pursue must depend on some nondeliberative and intuitive grasp of first principles. I now want to show how the same conclusion emerges from a second role of deliberation.

In Aquinas's view, it is important to show that the will is moved by reason if we are to show that we have free choice.¹⁵ For he believes that the "root" of freedom is the will, since the will is the subject of freedom, but he insists that reason is the cause of freedom. It is because reason can form different conceptions of the good that the will can be moved freely towards different things:

The root of freedom is the will, as subject; but the root as cause is reason. For the reason why the will can freely be moved towards different things is that reason can have different conceptions of good. And that is why philosophers define free choice as free judgment from reason, taking reason to be the cause of freedom. (*ST* I, q. 17, a. 1, ad 2)

To support his claim that we have free choice, Aquinas cannot argue simply that reason moves us insofar as it grasps the ultimate end which is happiness;¹⁶ for this is not open to free choice, since we have no alternative to the pursuit of happiness. Nor can reason express freedom in specifying the ultimate end by the exercise of

¹⁵ As translators often do, I use "choice" for "arbitrium" and "will" for "voluntas." Cf. *ST* I, q. 83, a. 4, ad 1.

¹⁶ On the ultimate end, see *ST* I-IIae, q. 3, a. 4, ad 3; II-IIae, q. 4, a. 7.

synderesis, for this is an intuitive grasp of ends, which does not rest on any consideration of alternatives.

The sort of intellectual activity that Aquinas might fairly invoke to support his claim that we have free choice is deliberation about different options, resulting in the election of one of the options. And this is what he clearly intends to invoke:

A human being is master of his action as a result of the fact that he has deliberation [*deliberationem*] about his actions. For from the fact that deliberating reason is related to opposites it results that the will is capable [of going] in both directions.¹⁷

Free choice is "that by which [rational creatures] deliberate and elect" (*consiliantur et eligunt*, *ST* I, q. 22, a. 2, ad 4). Indeed, free choice simply is the will as it is exercised in election.¹⁸ Different conceptions of the good, therefore, express human freedom only to the extent that they rest on deliberation and election.

Aquinas believes that it is up to us, and so up to our free choice, to be virtuous or vicious. For he believes that (i) the rational pursuit of the ultimate end and (ii) our natural nonrational inclinations are beyond our control. But neither of these undermines our free choice in being virtuous or vicious. The natural desire for the end is common to virtuous and to vicious people; and natural appetites do not incline us irresistibly, but are subject to the will, since we can still elect one of a number of options (*ST* I, q. 83, a. 1, ad 5; I-IIae q. 13, a. 6). Hence our character is up to our free choice. In that case the distinctive features of virtuous or vicious people must be accessible to free choice, and so to deliberation. But, in Aquinas's view, virtuous people differ fundamentally from vicious people in the ends they accept; and for the reasons we have seen, the virtuous person's acceptance of these ends must be the product of synderesis—it cannot be the product of deliberation, which is not concerned with ends.

¹⁷ *ST* I-IIae, q. 6, a. 2, ad 2. On election, free choice, means, and ends, see also I, q. 60, a. 2; q. 62, a. 8, ad 2; I-IIae, q. 109, a. 2, ad 1.

¹⁸ "Unde etiam eiusdem potentiae est velle et eligere. Et propter hoc voluntas et liberum arbitrium non sunt duae potentiae, sed una" (*ST* I, q. 83, a. 4). See also I, q. 83, a. 3, sed c: "Liberum autem arbitrium est secundum quod eligimus." *De Ver.* q. 24, a. 6: "Liberum arbitrium est ipsa voluntas. Nominat autem eam non absolute, sed in ordine ad aliquem actum eius, qui est eligere." Cf. *ST* I, q. 59, a. 3; II-IIae, q. 24, a. 1, ad 3; *Summa Contra Gentiles* III, 155.3.

It follows that the restriction allowed to deliberation implies an unwelcome restriction on the scope of free choice. Aquinas believes that being virtuous or vicious must be up to free choice, but his account of deliberation prevents him from explaining how free choice could have the appropriate role. It would have the appropriate role if deliberation could determine our choice of ends; but this is the role for deliberation that Aquinas means to exclude when he invokes *synderesis*.

The conflict that Aquinas seems to face emerges from this argument:

(1) An inclination towards the right ends distinguishes virtue from vice.

(2) Prudence is deliberative, and therefore concerned only with means to ends.

(3) Therefore, the inclination towards the right ends is independent of prudence.

(4) Therefore, the inclination towards the right end is independent of our deliberative capacities.

(5) What is in our control depends on our deliberative capacities.

(6) Therefore, the inclination towards the right end is not in our control.

(7) Therefore, it is not in our control to be virtuous or vicious.

The argument exposes a conflict, because Aquinas seems to believe all the premises, but the conclusion in (7) conflicts with his central claim that it is in our control to be virtuous or vicious. His views on virtue, prudence, and *synderesis* commit him to steps (1)–(4); his account of free choice secures (5); and then the unwelcome conclusions follow in (6) and (7).

Aquinas's account of free choice is (I will assume) reasonable; and his belief that virtue and vice are in our control is (I will assume) justified. His views about prudence and deliberation seem to be the source of trouble, and so these need to be reexamined.

This conflict is easier to trace in Aquinas than it would be in Aristotle, for Aquinas clearly accepts steps (3) and (4), whereas Aristotle leaves it an open question whether he accepts them. Moreover, the claim about free choice and deliberation in step (5) is explicit in Aquinas, and less clear in Aristotle. Nonetheless, I

think Aristotle is committed to (5).¹⁹ He cannot therefore avoid the conflict that Aquinas faces—if he also accepts the narrow conception of deliberation that creates the conflict in Aquinas. If that is so, then Aquinas's interpretation and expansion of Aristotle in his claims about virtue and prudence ought to be unwelcome to a defender of Aristotle.

VI

A resolution of this conflict does not require the rejection of Aquinas's claim (2), that deliberation and prudence are concerned with means to ends. Instead, we should deny that (3) follows from (1) and (2). I have shown that Aquinas's claims about virtue and synderesis presuppose a narrow conception of deliberation, implying that deliberation cannot alter one's views about ends. But strong reasons have been given for attributing to Aristotle a wider conception of deliberation, and so for taking "means" in a very broad sense that includes parts, constituents, and specifications of ends.

If Aquinas accepts this broad interpretation of "means to ends," he can more easily explain how the exercise of deliberation results in different conceptions of the good, not simply in different views about how to get it. His belief that deliberation presupposes some end does not by itself require him to confine prudence and deliberation to a narrow scope. For—as he makes clear in his remarks both about the ultimate end and about the will—the claim that we have a desire for the ultimate end, and that this desire is not within the control of the will, does not restrict the scope of practical reason very severely. The desire that is presupposed is quite schematic; it aims at an end with a certain structure, but leaves it to further rational reflection to decide what the content is to be.

This schematic, structural desire for the ultimate end cannot be the distinctive feature of virtue, for the schematic desire is common to all rational agents, and is not subject to their will. The end

¹⁹ I discuss this a bit further in "Reason and Responsibility in Aristotle," in *Essays on Aristotle's Ethics*, ed. A. O. Rorty; and in *Aristotle's First Principles* (Oxford: Oxford University Press, 1988), ch. 15.

that is distinctive of the virtuous person is more specific and results from deliberation.

How far is this solution available to Aquinas? That depends on how far he recognizes the broad scope of "means to ends." But this question is not easy to answer. At some places he seems to come closer than Aristotle comes to recognizing that different conceptions of the good might be the result of deliberation about "means" to the ultimate end. When he considers people who allegedly pursue several ultimate ends, he argues that they really pursue one ultimate end; "all those many things were being taken to have the character of one perfect good composed of them [*ex his constituti*], by those who were placing [*ponebant*] the ultimate end in them" (*ST* I, q. 1, a. 5, ad 1). He also remarks that in choosing something for the sake of an end, we need not be ordering it towards some external end ("ad aliquem finem extrinsecum," *ST* I, q. 1, a. 6, ad 1), but instead we can think of it as being included in a complete good ("comprehenditur sub bono completo et perfecto," q. 1, a. 6, ad 2).²⁰ In saying that these constitutive goods are "directed towards" (*ordinare ad*) the end, Aquinas implies that the relation of means to end need not be a purely causal relation in which the end is external to the means, but may also be the relation between a whole and a part or between an indeterminate end and a determinate end that specifies it.

We do not need, therefore, to read anything into Aquinas if we want to attribute to him a broad conception of means to ends. Indeed, we could spare ourselves some doubts and disputes about Aristotle if he were as explicit as Aquinas is on some of these points. Moreover, if we ask Aquinas how it comes about that different people "place" happiness in different determinate goods which they take to be directed towards happiness, but not directed towards it as an external end, I do not see how his answer could reasonably fail to refer to deliberation and election. On the other hand, I know of no place where he clearly recognizes that the sort of practical thinking that results in placing happiness in one or another determinate good is genuine deliberation of the sort that he discusses in his account of deliberation and election.

²⁰ The "et similiter" beginning ad 2 suggests that "comprehenditur" is meant to indicate the same relation that was suggested (in ad 1) in saying that the ultimate end is not a *finis extrinsecus*.

VII

If Aquinas allows this broad scope to deliberation, then he ought to allow a similarly broad scope to the deliberative virtue of prudence. In particular, he ought to agree that the prudent person's deliberation results in a correct conception of the end to be pursued. And sometimes this does indeed seem to be his view of prudence. He describes prudence in general terms as considering those things by which one achieves happiness ("ea quibus pervenitur ad felicitatem," *ST I-IIae*, q. 66, a. 5, ad 2); and if prudence considers this question in its full generality, then it must deliberate about different possible conceptions of happiness. We might take this to be Aquinas's point in saying that prudence directs all the moral virtues.²¹ He actually insists that this directing does not extend simply to the choice of means to ends, but also includes the "fixing" (*praestituere*) or "determining" (*determinare*) of the end, in so far as prudence determines the mean that the virtue consists in.²²

Such an account of the prudent person's deliberation allows Aquinas to explain the division of labor that is implied in the claim that virtue grasps the end and prudence finds the means. While this division of labor implies two distinct roles, it does not imply

²¹ See *ST I-IIae*, q. 21, a. 2, ad 2; q. 58, a. 2, ad 4; *II-IIae*, q. 119, a. 3, ad 3.

²² *ST I-IIae*, q. 66, a. 3, ad 3: "prudentia non solum dirigit virtutes morales in eligendo ea quae sunt ad finem, sed etiam in praestituendo finem. Est autem finis uniuscuiusque virtutis moralis attingere medium in propria materia; quod quidem medium determinatur secundum rectam rationem prudentiae . . ."

The Blackfriars editor (W. D. Hughes in *Summa Theologiae*, v. 23 [London: Eyre and Spottiswoode, 1968], ad loc.) seeks to explain why this claim is not in conflict with the passages on prudence as concerned with means (*I-IIae*, q. 57, a. 4; *II-IIae*, q. 47, a. 6): "Prudence presupposes a right attitude, *appetitus*, to moral ends, then prescribes where these are to be found here and now." This answer seems to underestimate the role that Aquinas has in mind in this passage (which is not simply concerned with finding the mean here and now), and fails to ask how the "right attitude" can be formed without some prior contribution by prudence. One might have looked for clarification of Aquinas's remark about fixing the end in his comments on Aristotle's claim that prudence is the "true apprehension [*hupolepsis*] of the end" (*EN* 1142b33). Unfortunately, he reproduces the passage without comment ("circa quem [sc. finem] veram existimationem habet prudentia simpliciter dicta," *In EN*, #1233). He does not comment further in his discussion of *euboulia* and prudence in *ST I-IIae*, q. 57, a. 6, or *II-IIae*, q. 51, a. 2.

that either is prior to or independent of the other. On the contrary, the grasp of the end that is proper to virtue is the product of the grasp of the means that is proper to prudence. For the "means" grasped by prudence are actually specifications of the schematic ultimate end; and these specifications are suitable ends to be grasped by the virtuous person. The same operations can be attributed, from different and appropriate points of view, both to virtue and to prudence. This is an attractive interpretation of the remarks in Aristotle that underlie Aquinas's claims; and we might consider whether it could also be applied to Aquinas.

This interpretation makes it easy to explain why Aquinas thinks moral virtue requires prudence, and in particular why he attaches such importance to the correct election that results from the prudent person's deliberation. We need not suppose that prudence simply insures the right choice of actions through the right choice of instrumental means. It also ensures the right motive for the action; for the prudent person's deliberation about happiness results in the right determinate conception of what happiness is, and this conception forms the end of the virtuous person's actions.²³ A wide conception of deliberation seems just right for these claims about prudence and virtue.

The wide conception of deliberation, however, is difficult to reconcile with Aquinas's explanation of the claim that virtue makes the end right. For he argues that what makes the end right cannot be the result of deliberation, because deliberation is concerned only with means to ends. He would not argue in this way if he clearly and steadily accepted the wide conception of deliberation; for the wide conception explains why concern with means of the right sort (constituents or specifications of the end) just is the appropriate sort of concern with the end. Since some of Aquinas's other remarks seem to require the wide conception of deliberation, he seems to be inconsistent in his attitude toward it; and a sign of his inconsistency is his reliance on *synderesis* to do the work that he ought to have assigned to deliberation.

²³ This role for prudence is more clearly recognized by Duns Scotus, *Ordinatio* iii, Suppl., dist. 36, a2, in *Duns Scotus on the Will and Morality*, ed. A. B. Wolter (Washington, D.C.: Catholic University of America Press, 1986), 408. On developments in the conception of prudence between Aquinas and Scotus see Lottin, *Psychologie et morale*, vol. 4 (1954), esp. 571, 575 (on the not wholly fortunate doctrine of two types of prudence).

I do not mean to claim that Aquinas should not have introduced synderesis at all. I mean simply that it does not seem to fit the role for which he needs it in explaining how virtue makes the end right. The end that virtue makes right must be the one that the virtuous person grasps and the vicious person does not grasp (*EN* 1144a7-9, a20-b1; *In EN* #1273-4); the vicious person is especially badly off because he lacks the right principle (*EN* 1151a15-26). Whatever it is that "makes the end right" must explain this difference between the virtuous and the vicious person.

Synderesis fails in this task. It already has a recognized place in moral epistemology before Aquinas appeals to it to explain Aristotle's remarks about practical reason; and it is not suited for the new task he assigns it. For Aquinas, in agreement with his predecessors, normally invokes synderesis to explain the elementary and schematic grasp of principles that he attributes to everyone, and this grasp of principles is not extinguished in the vicious person.²⁴ Aquinas relies on the same conception of synderesis when he answers an objection derived from Aristotle's claim that the vicious person lacks the right principle. This objection argues that since the vicious person lacks the right principle, and synderesis grasps the right principle, synderesis must have been extinguished in the vicious person. Aquinas replies that synderesis is not extinguished in him:

He is indeed corrupted about the principles of things to be done, not indeed in the universal, but in the particular thing to be done—namely, in so far as reason is abased through the state of vice, so that he does not apply the universal judgment in electing its particular thing to be done.²⁵

In Aquinas's view, then, synderesis is responsible for something that the vicious and the virtuous person have in common. It is

²⁴ See *De Ver.*, q. 16, a. 3: "Et sic impossibile est in universali iudicium synderesis extingui; in particulari vero operabili extinguitur quandocumque peccatur in eligendo. Vis enim concupiscentiae vel alterius passionis ita rationem absorbet, ut in eligendo synderesis universale iudicium ad particularem actum non applicet. Sed hoc non extinguit synderesim simpliciter, sed secundum quid."

²⁵ "... est quidem corruptus circa principia operabilium, non quidem in universali, sed in particulari operabili; in quantum scilicet per habitum vitii deprimitur ratio, ne universale iudicium ad eius particulare operabile applicet in eligendo" (*De Ver.*, q. 16, a. 3, ad 3; for the same distinction, see *ST* I-IIae, q. 94, a. 6).

therefore not suited to explain how they differ; and so it is not suited to explain how virtue makes the end right. Elsewhere Aquinas argues that it is the incontinent person's ignorance that leads to wrong choice of particulars, whereas the vicious person is mistaken about the end, since he thinks a certain kind of action (such as the unrestrained pursuit of pleasure) is good (*ST* II-IIae, q. 156, a. 3, ad 1-2). The conception of the end that is open to this sort of error cannot be the conception provided by synderesis.

Aquinas's remarks about synderesis do not make its exact scope clear. If synderesis has a very general scope so that it describes what is present both in virtuous and in vicious people, then it fits quite well with a wide conception of deliberation. For something more than merely instrumental reasoning is needed to see what kinds of actions and rules would properly embody or specify the very general principles grasped by synderesis. Sometimes Aquinas seems to realize this, but other times he seems to attribute more content to synderesis.

Sometimes these two views of synderesis seem to appear in the same argument. Earlier I quoted Aquinas's account of how natural reason and synderesis determine the end for the virtues,²⁶ so that, for instance, temperance aims at not deviating from correct reason because of appetites, and bravery aims at not deviating from it because of fear or rashness. This makes it look as though we know, independently of any exercise of deliberation, that the right end involves some considerable degree of control over appetites and fears; and in that case the virtuous person learns something different through synderesis from what the vicious person learns. On this view, Aquinas's conception of synderesis is fairly "thick," in that it

Though Aquinas is clearly thinking of *EN* 1151a15-26, he does not mention this role of synderesis at *In EN* #1431-3. He does not directly confront Aristotle's claim that the vicious person lacks the *archē*. This claim is most explicit in the remark that in the incontinent person, as opposed to the vicious person, "the best thing, the *archē*, is preserved" (*sōzetai gar to beltiston, hē archē*, 1151a25). Aquinas's Latin version renders "salvatur enim optimum principium," which could accurately represent the Greek if it had a comma after "optimum," but without the comma is naturally understood, as Aquinas understands it, "the best principle is preserved," *In EN* #1431. But this should not make a great difference to the interpretation of the passage.

²⁶ See the passage from *ST* II-IIae, q. 47, a. 7, quoted above in section III.

contains enough to explain what is distinctive about the virtuous person's conception of the end.

The immediately following remarks, on the other hand, seem to suggest a "thin" conception of synderesis:

And this end is fixed for a human being in accordance with natural reason: for natural reason instructs each person to act in accordance with reason. But in what way and through what things a human being in acting is to reach the mean of reason—this belongs to the arrangement²⁷ made by prudence. For, granted that reaching the mean is the end of moral virtue, still the mean is found by the right arrangement of the things that are towards the end.²⁸

These remarks seem to imply a thin conception of synderesis, because it seems to prescribe only action in accordance with reason. This prescription commits it to the further principle: "If a considerable degree of control over appetite is needed for action in accordance with reason, then one ought to control one's appetites to a considerable degree." But acceptance of this conditional does not imply acceptance of the consequent; and acceptance of the consequent is characteristic of the temperate person. Hence this thin conception of synderesis fails to include what is characteristic of the temperate person.

If Aquinas intends a thin conception of synderesis, then he requires a correspondingly wider function for prudence and deliberation. For if everything more specific than the general tendency to make desires conform with reason requires the deliberative operations of prudence, then deliberation must make the difference between the virtuous and the vicious person. Someone could begin with the schematic aim of acting in accordance with reason, and erroneously conclude from deliberation that this aim is achieved by injustice, cowardice, and so on. If he is to grasp the right end, his deliberation needs to be corrected.

The thin conception of synderesis seems not only to allow, but actually to require, something like the wide role of deliberation that Aquinas needs in his claims about happiness. Indeed, it would be fair to appeal to these claims to challenge my suggestion that Aquinas is seriously inconsistent in his claims about the role of prudence

²⁷ Reading "dispositionem" (v. 1. "rationem").

²⁸ *ST II-IIae*, q. 47, a. 7. For the same distinction, see *I-IIae*, q. 94, a. 3.

and deliberation. For—we might argue on Aquinas's behalf—must we not suppose that prudence is needed to form the general principles grasped by synderesis into the specific conception of the end that is grasped by the virtuous person?

I certainly agree that this is a reasonable defense of *some* of what Aquinas says. I am not convinced that it adequately explains *all* he says, or that it answers the main objections that I raised earlier. For the more we emphasize the schematic and general character of the ends grasped by synderesis, the less plausible it becomes to invoke synderesis in explaining how virtue makes the end right. A thick conception of synderesis seems to be needed to supply something distinctive of the virtuous person's end. On the other hand, a thick conception seems to conflict with Aquinas's normal view that synderesis is present in both the virtuous and the vicious person.

I am not sure I understand everything Aquinas says and implies about synderesis, and so I am not sure whether he has a consistent view of it or not.²⁹ But I hope I have made the general character of my objection clear. I want to say that the universal character of synderesis makes it an unsuitable part of Aquinas's interpretation of Aristotle's claim that virtue makes the end right. Aquinas thinks that Aristotle means that the right grasp of the end is fixed independently of prudence because prudence, being deliberative, can tell us only about means to ends; but his own attempt to explain the right grasp of the end involves a mistaken appeal to synderesis, which cannot explain what needs explanation.

The right reaction is to reexamine the assumption that when Aristotle says that virtue makes the end right, he means that something independent of prudence fixes the end. We have good reason to reject this assumption if we recognize a wide scope for deliberation. Perhaps it is easier to allow a wider scope to deliberation if we understand what is involved in "fixing" or "determining" an end.

²⁹ At this point one might think of appealing to the different degrees of explicitness in different people's grasp of the principles that are grasped by synderesis (see note 10 above). I do not think this would solve the problem, since one still needs to decide between the thin and the thick conception of what becomes explicit to the virtuous person; and if one finds that the principles become explicit through deliberation, then one allows deliberation a role in finding the right end—contrary to Aquinas's claims about the limitations of deliberation.

It would be wrong to claim that prudence fixes the end in the sense that it is up to us to make it true that (for example) the end requires temperate rather than intemperate action. The fact that temperance is good for human beings and intemperance is bad for them is true because of facts about human nature, and these facts do not depend on what we decide as a result of deliberation; we discover, and do not invent, the truths that determine what is good and bad for us. In this sense, facts independent both of prudence and of synderesis fix the end. This still allows us to claim, however, that the exercise of deliberation is needed if we are to discover the character of the end whose pursuit is proper to us; and at this point it is reasonable to assign a wide scope to deliberation.

Aquinas sometimes implies that deliberation has this wide scope; but he does not see that it conflicts with his own account of how virtue makes the end right. A proper account of the scope of deliberation should encourage us to say that virtue makes the specific end right, since it rests on deliberation that has specified the more general end. But this is a different solution from the one that Aquinas offers.

VIII

In arguing that Aquinas's position is inconsistent, I have not meant to suggest that he makes some foolish mistake. On the contrary, I remarked earlier that Aristotle's position on these issues is quite obscure, and invites different kinds of interpretation and amplification. It is especially interesting that Aquinas presents (without saying so) the two most plausible lines of interpretation and allows us to see some of their advantages and disadvantages. It is quite intelligible that he finds both views attractive.

Some study of Aquinas also suggests which account of Aristotle, and which revision of Aquinas, we ought to prefer. Aquinas relies so heavily on a wide conception of deliberation in his claims about free choice, happiness, and the specification of the general principles of natural law that he ought also to rely on it to answer the questions about virtue and prudence. To the extent that he develops a wide conception of deliberation more fully than Aristotle does, he shows how it might play an intelligible role in a teleological moral theory.

This is not to say that Aquinas removes all the doubts that might be raised about a wide conception of deliberation. For we might well say that the process and norms of deliberation are clear and intelligible to the extent that it is focused on instrumental reasoning, and that once it is pressed into other tasks, we can no longer be sure that any clear rational procedure is being described.

While these doubts cannot fairly be dismissed out of hand, we have some reason to believe they are exaggerated. I have mentioned some places where Aquinas seems to rely on noninstrumental deliberation. The tasks he attributes to it are not the sorts of tasks that only an Aristotelian theory needs to have carried out. On the contrary, the sort of deliberation on which Aquinas relies has a reasonable claim to be an important element in practical reasoning more generally. The fact that Aquinas relies on noninstrumental deliberation in so many different places tends to support the view that we ought to try to understand it rather than eliminate it.³⁰

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³⁰ I am grateful for comments on a predecessor of this paper, from an audience at the University of Kansas, and from Jeffrey Hause and Norman Kretzmann.

BEING AND CATEGORIAL INTUITION

RICHARD COBB-STEVENS

THE TITLE OF THIS PAPER calls for clarification. Not only are there several senses in which something may be said to "be," there are also many nuances to the terms "categorical" and "intuition." Taking Aristotle as a guide, let us focus upon the primary sense of "being," that is, substance (*ousia*) considered both as first substance (*tode ti*) and second substance (*ti esti*).¹ We may then take "categorical" as referring to what Aristotle calls the "figures of predication," the ways in which predicates characterize subjects, indicating "what" the subject is, its quality, quantity, relation, its "where," its "when," and so forth.² The term "intuition" expresses something too primitive to be defined, but Edmund Husserl's metaphorical contrast between the "emptiness" of thought and speech and the "fullness" of intuition successfully highlights its essential characteristic. A couple of examples should suffice to grasp the import of Husserl's distinction. Consider the difference, for instance, between first entertaining vague plans of visiting a foreign city and then experiencing the fulfillment of actually strolling through its streets, or the difference between first reading a manual of instructions for performing some task and then actually executing the task skillfully. Taking Husserl as a guide, let us therefore characterize intuition broadly as the presentation of something in its fullness, as opposed to thinking or talking about it in an empty way.³ Finally, combining Husserlian and Aristotelian terminologies, we may describe cate-

¹ "Being [*to on*] is said in many ways . . . for in one way it means the 'what is it' [*ti esti*] and a 'this' [*tode ti*], and in others it means a quality or quantity or one of the other things that are predicated as these are. While being is said in all of these ways, it is obvious that primary among these is the 'what is it' which indicates the substance [*tên ousian*];" Aristotle, *Metaphysics* 1028a10-15. All translations of Aristotle are my own.

² Ibid., 1017a23-8.

³ Edmund Husserl, *Logical Investigations*, trans. J. N. Findlay (London: Routledge & Kegan Paul, 1970), VI, chs. 1 and 2; *Formal and Transcendental*

gorial intuition as the presentation of figures of predication. Rather than presenting some particular thing, say a red chair, categorial intuition presents the chair's *being* red, the red quality's *belonging* to the chair. In short, categorial intuition makes present the modes of presentation of things.

In what follows, I shall first develop at some length the thesis that Husserl's theory of categorial intuition clarifies and revitalizes Aristotle's theories of substance and essence, and then briefly offer some suggestions as to how Husserl's retrieval of these Aristotelian themes sheds light on two contemporary philosophic problems: (1) how to account for the meaningful use of words without postulating a screen of concepts functioning as mental intermediaries, and (2) how to adapt traditional ontology to the specifically modern modes of intelligibility introduced by algebra and analytic geometry. It should be noted from the outset, however, that Husserl does not seem to have been directly influenced by the relevant texts of Aristotle. His unintentional retrieval of Aristotle's interpretation of the role of categorial structures testifies all the more forcefully, therefore, to the remarkable kinship between their philosophic positions.

I

"The soul is in a way all things."⁴ Aristotle thus characterizes the soul more by its unrestricted potency than by any fixed structure of its own. The soul's mode of being is its self-transcending openness to the world, its unlimited capacity to take on the shapes of other things. Its cognitive powers of perception and intellectual insight progress from potentiality to actuality by actualizing the presentational forms of things. Stanley Rosen calls attention to Aristotle's metaphors for this process. Aristotle first observes that it is not possible for the soul's faculties to become literally identical with things, ". . . for the stone does not exist in the soul, but rather the form [of the stone]."⁵ To the modern reader, this comment suggests

Logic, trans. Dorion Cairns (The Hague: Nijhoff, 1969), #16. See Robert Sokolowski, *Husserlian Meditations: How Words Present Things* (Evanston: Northwestern University Press, 1974), pp. 18–19.

⁴ *De Anima* 431b21–2.

⁵ *De Anima* 431b30–432a1.

that cognition abstracts the forms of things and incorporates them within the soul's inner space. As if to counter this impression, however, Aristotle next compares knowledge with touch. We grasp forms in the way that the human hand grasps tools: "It follows that the soul is like the hand; for just as the hand is the instrument of instruments, so the intellect is the form of forms, and sense the form of sensible things."⁶ The latter metaphor suggests that the soul reaches out to grasp forms in the things themselves, and also that the soul maintains a certain detachment from its objects even in the process of grasping them. The hand does not literally become the thing that it holds. It discerns the thing's form by embracing its contours. Although the hand has its own form, its malleability is such that it can adjust to the form of anything that it grasps. Moreover, as Rosen points out, the hand cannot grasp its own form. In a sense, therefore, the hand itself is formless. In a similar sense, the soul has no discernible shape. Unrestricted with regard to the kinds of objects to which it relates, its mode of being is to be (potentially) everything.⁷

According to Aristotle, a thing's form is revealed to us by its specific "look" (*eidos*). The species-look is "what" we know when we know some particular thing (a "this"). Although there are as many types of being as there are figures of predication, the primary sense of being is substance (*ousia*), because it is only in virtue of this category that other categories (such as quantity, quality, and relation) can be. Within the category of substance Aristotle also distinguishes between primary and secondary senses of substantiality. In a primary sense, substance is the individual (*tode ti*) which is both a "this" and a "what." In a secondary sense, substance is exclusively the "what" (*ti esti*).⁸ He also stresses that knowledge of a particular and its sortal feature always occurs as a unity, and that this prior unity is the condition for the subsequent distinction of first and second substance. We cannot identify or give an explanatory account of a primary substance without asking what it is, and we have no access to secondary substance except as instanced

⁶ *De Anima* 432a2-3.

⁷ Stanley Rosen, "Thought and Touch: A Note on Aristotle's *De Anima*," *Phronesis* 6 (1961):127-37.

⁸ *Metaphysics* 1028a10-15; *Categories* 1b11-18. See J. A. Smith, "*tode ti* in Aristotle," *Classical Review* 35 (1921):19.

in some particular.⁹ This is why Aristotle does not raise questions about existence in the manner to which we have become accustomed since the development of Frege's argument-function model for predication. Frege construes concepts introduced by predicates as functions, individuals introduced by proper names as arguments, and indicators of generality as quantifiers.¹⁰ This approach effectively eliminates the ontological role of secondary substances. Considered as functions and therefore defined by exclusively extensional criteria, concepts can no longer coherently be regarded as intensional correlates of intuitively accessible properties which delimit the range of applicability for the relevant predicates. Moreover, this approach tacitly interprets the candidates for the function-slots of concepts as "bare particulars." Since there is in principle no limit to the domain of values over which the variables bound by the quantifier may be thought to range, it follows that particulars considered as possible instances of concepts can no longer coherently be regarded as already sharing in the sortal features expressed by the relevant predicates.¹¹ As a result, there is a tendency among Frege's followers to reduce the multiple senses of being to one. For example, Quine's celebrated maxim, "To be is to be the value of a variable," implies that being is reducible to existence and that existence is equivalent to instantiation of a concept.¹² On this interpretation, it makes no sense to raise questions about the ontological status of species-looks or about the sense of "being" corresponding to the unity of a "this" and its "what." For Aristotle, by contrast, existence is inseparable from being-true: to be is to share truly in some universal nature. Indeed, whenever he considers the unity of primary and secondary substance in the intuited whole, he says that the whole is both an individual and a nature. Contemporary ana-

⁹ *Metaphysics* 1041a7-27. See Deborah K. W. Modrak, *Aristotle: The Power of Perception* (Chicago: University of Chicago Press, 1987), 168.

¹⁰ Gottlob Frege, "Function and Concept," *Collected Papers on Mathematics, Logic, and Philosophy*, trans. Max Black et al., ed. Brian McGuinness (Oxford: Basil Blackwell, 1984), 137-56.

¹¹ These implications of Frege's logic are developed more in detail in my book, *Husserl and Analytic Philosophy* (Dordrecht: Kluwer, 1990), 58-71; 95-7. See also David Rapport Lachterman, *The Ethics of Geometry: A Genealogy of Modernity* (London: Routledge, 1989), 93-5.

¹² Willard Van Orman Quine, "On What There Is," *Review of Metaphysics* 2 (1948):32. See William F. Vallicella, "A Critique of the Quantificational Account of Existence," *The Thomist* 47 (1983): 242-67.

lytic philosophers generally find this claim incomprehensible, for it seems to suggest confusedly that *ousia* is a chameleon-like entity, now universal, now particular, and sometimes even both.¹³ Aristotle never claims, however, that universal properties inhere in particulars in such a way as to make hybrid beings of the resultant composites. Forms are shared principles of intelligibility and manifestation rather than constituents analogous to physical parts.

Predicative discourse gives syntactical articulation to the inarticulate nuances of intuition. Judging is ordinarily directed upon things and their perceived features rather than upon concepts or propositions. To judge is therefore not to assent to a synthesis of intramental contents, but rather to articulate in an assertive manner the mode of "belonging to" that obtains between things and their looks. As Aristotle puts it, we can hardly conceive of judgmental synthesis "apart from the things thus combined."¹⁴ Species-looks are therefore not arbitrary conceptual constructs but natural kinds which are encountered in the everyday world. Aristotle points out that a species is more properly called a secondary substance than is a genus, since the species yields a more delimited and therefore more scientific response to the question "What is it?" regarding the primary substance.¹⁵ This does not mean, of course, that casual inspection of things yields scientific knowledge about them. Initial looks provide only preliminary and tentative classifications which are subject to refinement in the light of further investigation. Nor does it mean that scientific knowledge is limited to the classification of things according to their characteristic physical shapes. Fully scientific definitions of physical things must also spell out the intelligible principles that account for their motion or growth.¹⁶ Moreover, in addition to the species-looks of physical objects, there are also the species-looks of geometrical objects and relationships, which are clearly not reducible to the shapes of the particular drawings designed to illustrate them. The geometer, Aristotle observes, often considers determinate features of a token triangle as though they were indeterminate in order better to grasp the determinate

¹³ See Ignacio Angelelli, *Gottlob Frege and Traditional Philosophy* (Dordrecht: Reidel, 1967), 119–20. See also Stanley Rosen, *The Limits of Analysis* (New York: Basic Books, 1984), 106–20.

¹⁴ *On Interpretation* 16b25–6.

¹⁵ *Categories* 2b7–14; *Metaphysics* 1031b6–7.

¹⁶ *Physics* 184a10–b14.

essence of triangularity. He adds that we sometimes make use of some imagined quantity in order to think of something entirely non-quantitative.¹⁷

Aristotle does not speak explicitly of the species-looks of ethical situations. Indeed, he stresses that ethics and politics deal with "ultimate particulars," that is, irreducibly unique human actions. Nevertheless, he describes intelligence in every domain as the power to discern what is essential in the matters under investigation. To have practical wisdom is to have a flair for making irreducibly particular ethical decisions with elegance and with a sure sense of the mean between extremes, but it is also to enjoy the kind of insight into what is essential in human affairs that comes from long experience in the practice of virtue. Aristotle points out that intuitive reason (*nous*) is operative in the work of practical wisdom to the extent that its reasonings yield ethical universals, and adds that we ought to attend to the sayings of prudent older persons because their experience has given them an "eye" for such universals.¹⁸ He therefore interprets intuitive rationality broadly so as to include different types of essential intuition which yield different types of truth. To be satisfied in the ethical and political realms with the modest goal of striking an imprecisely demarcated mean between extremes is not to settle for mere opinion, but to enjoy the mode of truth that belongs properly to the realm of human action.

Aristotle assigns the principal role in the process by which we thematize universals as such to a mode of intuition (*epagōgē*) which he describes as a kind of reasoning that advances from accumulated and retained sensory perceptions to noetic insight. Just as a rout in battle ends when first one and then another deserter takes a stand (that is, when discrete individuals adopt a battle formation in which their particular differences cease to count and they become soldiers once again), so also the process of eidetic intuition comes to an end when the intellect discerns a principle of orderly arrangement among sensible particulars.¹⁹ Note that Aristotle describes this process as a continuum. He does not draw any fixed line of

¹⁷ *De Memoria et Reminiscentia*, 450a1-9.

¹⁸ *Nicomachean Ethics* 1094b24-7; 1142a23-b16.

¹⁹ *Posterior Analytics* 99b84-100b5. See Modrak, *Aristotle: The Power of Perception*, 165-76. The standard translation of *epagōgē* as "induction" does not adequately convey Aristotle's conviction that *epagōgē* yields essential insight.

demarcation between perception of particulars and intellection of their essences. Rosen points out that unless we first had an inarticulate appreciation of the difference between the properties belonging to the individual as such and the properties belonging to the species-look, we could never subsequently understand the distinction between essential and accidental features of things. Under such circumstances there could never be any science. He adds that there is no way to account for how we do this, except after the fact, and then only by a sort of transcendental deduction.²⁰ Of course, a transcendental argument of this type serves mainly as a guide to the reflective reconstruction of the nuances of intuition. Intuitive distinctions cannot be derived from logical analysis. There comes a moment, as Wittgenstein remarked, when philosophy must "call a halt" to explanation and fall back on "seeing by seeing."²¹

Since any particular may exhibit several different properties, we must sort out which properties belong to the object *qua* member of a species, and which others derive from some nonessential attribute (which might itself be taken as essential from another point of view). A property which is incidental under one classification may be essential under another. Aristotle therefore maintains that discernment of essences requires an ordered scrutiny that brings into play sophisticated sorting procedures and nuanced distinctions. In the simple case of forms embodied in different materials, such as the form of a circle in bronze or stone, it is easy to see that the materials should not be counted as part of the essence of the circle. If it were the case, however, that our acquaintance with circles were limited to those embodied in bronze, it would be considerably more difficult to recognize that the bronze is not a part of the circle as such.²² In such circumstances we must consider imagined variants and limit-cases. For example, if we "subtract" from a bronze object constructed in the shape of an isosceles triangle its bronze and isosceles attributes, the property of having internal angles equal to two right angles remains intact. If we bracket the object's triangularity, however, we thereby eliminate this property. Hence, we may conclude that it is *qua* triangle that the object possesses the property.

²⁰ Rosen, *The Limits of Analysis*, 60–5.

²¹ Ludwig Wittgenstein, *Zettel*, trans. G. E. M. Anscombe, eds. G. E. M. Anscombe and G. H. von Wright (Berkeley: University of California Press, 1967), #436.

²² *Metaphysics* 1036a34–b3.

One might object that we would produce the same effect if we were to bracket its figure or limit. No doubt this is true, Aristotle responds, but figure and limit are not the *first* differences whose subtraction eliminates the property in question.²³

Aristotle also hints at an intuitive process that culminates in the discernment of "higher universals" which apply to heterogeneous objects. He cites as an example the law governing the alternation of proportionals (If $a : b :: c : d$, then $a : c :: b : d$). We are prone to error, he observes, in determining when such a formal structure belongs essentially and as a first difference to any random instance. We might be tempted to suppose that this law applies to numbers qua numbers, or similarly to lines, solids, or temporal durations. Eudoxus has shown, however, that it applies to these diverse objects not by reason of their identifying properties, but rather because they manifest a property for which there is no name, because no single name could denote that by reason of which numbers, lengths, durations, and solids are identical. Thus, whereas Euclid claims that a ratio is ". . . a sort of relation in respect of size between two magnitudes of the same kind," Aristotle suggests that items that enter into proportional relationships need not belong to the same species or genus, or even to the same dimension.²⁴

II

Husserl makes a radical break with the modern interpretation of mind as a theater of representations. There is no evidence that he was particularly conversant with ancient or medieval metaphors for the intellect's transcending mode of being. Yet even his earliest works seem to have as their goal a revival of the pre-modern view that our perceptions and predications deal with real things and situations rather than with mental substitutes. As early as 1894, he

²³ *Posterior Analytics* 74b1-4. See John J. Cleary, "On the Terminology of 'Abstraction' in Aristotle," *Phronesis* 30 (1985): 22-3.

²⁴ *Posterior Analytics* 74a4-25; Euclid, *Elements*, ed. T. L. Heath (New York: Dover, 1926), bk. 5, definition 3. The emphasis is mine. Lachterman suggests that Euclid's adherence to the requirement of homogeneity testifies to a mathematical "prudence" which subordinates the technical virtuosity of mathematical praxis to ends that are worthy of pursuit, whereas modern mathematicians tend to determine ends in function of the accessibility of means; *The Ethics of Geometry*, 32.

asserts that intuitive consciousness reaches out beyond *sensa*, and grasps the intended object itself: ". . . an intuition is a 'setting before' in an authentic sense, where the object is actually put before us in such a manner that the object is itself the topic of psychical activity."²⁵ Against phenomenism, he argues that phenomena are presentations of things rather than mental surrogates for things. Against the British empiricists, he contends that intuition cannot be reduced to the reception of sensory impressions, for we have the capacity to discern the intelligible structures of things. Against Kant, he claims that *a priori* structures are intuited rather than deduced, and that they belong to the dimension of being rather than to the sphere of the subject. The fatal mistake of modern philosophy, he claims, is its assumption that the task of a theory of knowledge is to establish a connection between accessible mental representations and inaccessible things-in-themselves.²⁶

The question that motivated the development of Husserl's theory of categorial intuition was the following: what can provide intuitive fulfillment for those components of a proposition that belong to its categorial form, for example, prepositions, conjunctions, cases, the copula, and so forth? This problem did not arise for British empiricism because Locke and Hume regarded the correlates of syntactical operators as "ideas of reflexion," produced by the mind within its "inner cabinet," rather than impressed upon the mind by external things. They therefore held that syntactical terms name intramental processes. Husserl dismisses this thesis on the grounds that we are directed towards things rather than towards inner processes when we use such expressions. If we say "This paper is white," it is because we find that the property "white" belongs to the paper. Moreover, we surely use the term "is" in such a sentence to refer to the objective situation rather than to some "inner" psychological happening. Recalling Kant's saying that being is no real predicate, Husserl observes that although Kant was no doubt referring to being understood as existence in the sense of "absolute position," his dictum is also applicable to the use of "is" in its copulative or predicative sense, that is, as expressing the belonging

²⁵ Edmund Husserl, "Psychological Studies in the Elements of Logic," trans. Dallas Willard, *The Personalist* 58 (October, 1977): 304.

²⁶ Edmund Husserl, *The Idea of Phenomenology*, trans. William P. Alston and George Nakhnikian (The Hague: Nijhoff, 1964), 16-56.

of some property to an object. What sort of intuition, Husserl then asks, could bring to intuitive fulfillment this sense expressed by the copula? Surely we do not intuit the paper's *being* white, the *belonging* of white to paper, in the same way that we see some particular shade of white.²⁷ Besides syntactical terms, he adds, there are other formal components of propositions that cannot find their fulfillment in ordinary simple intuitions. Nouns, verbs, and even adjectival expressions introduce surplus meanings which cannot be fulfilled by simple intuitions: "The intention of the word 'white' only partially coincides with the color-aspect of the appearing object; a surplus of meaning remains over, a form which finds nothing in the appearance to confirm it."²⁸ Moreover, there are also statements which refer explicitly to ideal objects. In the definition of a triangle, for example, the subject-term "a triangle" denotes the triangle-type rather than the intuited particulars which serve as its tokens. Simple perceptions of particular instances clearly cannot serve as fulfilling intuitions for such terms.²⁹

Husserl concludes that we must acknowledge the role of non-sensuous or "categorical" intuitions which function in tandem with simple perceptions and which bring the formal components of predication to intuitive fulfillment. His account of the relationship between simple and categorical intuition puts into play some crucial distinctions regarding parts and wholes. Initially bewildering in their complexity, these distinctions are finally remarkable for their clarity and elegance. He first distinguishes between independent parts, or "pieces," and nonindependent parts, or "moments." Pieces are parts that are separable from their wholes. Moments are parts that are so interrelated with one another, or with their wholes, that they cannot be presented separately. For example, color is inseparable from extension or surface. Parts that require other parts

²⁷ *Logical Investigations*, VI, #40. Of course, use of the copula also indicates to an interlocutor that the speaker is executing an articulation and tacitly assenting to its truth. However, as Robert Sokolowski points out, the copula does not name these performances. It names the articulated relationship between part and whole, i.e., the way in which the predicated feature characterizes the object. Sokolowski, *Presence and Absence: A Philosophical Investigation of Language and Being* (Bloomington: Indiana University Press, 1978), 99-105.

²⁸ *Logical Investigations*, VI, #40. I have slightly modified Findlay's translation.

²⁹ *Ibid.*, #41.

as conditions of their manifestation are "founded" moments. A "founding" part or a founding whole may function as a condition of a founded moment, without itself being necessarily a moment. Sometimes, however, the founding-founded relationship is reciprocal, as in the case of color and extension. Husserl calls the imaginative process which reveals various part-whole relationships "free variation." For example, if one nonindependent feature of an object may be varied while another remains unchanged, we learn to recognize them as distinct moments.³⁰

In the light of these distinctions, Husserl describes the interplay between simple perceptions and categorial intuitions as follows. There is a continuity between pre-predicative perceptions of objects and properties and predicative articulations of objects as having those properties. Simple perceptions present objects and their properties as wholes whose latent parts and whose unity are as yet unthematized. Simple perceptions thus achieve the unified presentation of objects as having properties, but do not present the having or the unity as such. By contrast, categorial intuitions integrate within unified ensembles the founding simple intuitions of wholes and the founded articulations of objects and properties.³¹ Robert Sokolowski puts it clearly: "[In categorial intuition] not only do we have a thing and its feature presented to us, but we also have the presencing of the thing in its feature presented to us. . . . It is this presencing that responds, in what we experience, to the word 'is' when we state about something before us that it is such and such."³² Categorial intuitions thus effectively present the work of presentation expressed by syntactical terms and by the surplus senses of terms for objects and features. In short, categorial intuitions present the modes of presentation that Aristotle had called the "figures of predication."

³⁰ *Logical Investigations*, III, #1-17. Sokolowski observes that distinctions like Aristotle's matter and form, Spinoza's substance and modes, and Wittgenstein's word and word usage also involve the relationship between moments, or between moments and wholes. Robert Sokolowski, "The Logic of Parts and Wholes in Husserl's *Investigations*," *Philosophy and Phenomenological Research* 28 (1968): 541.

³¹ *Logical Investigations*, VI, #47.

³² Robert Sokolowski, "Husserl's Concept of Categorial Intuition," *Phenomenology and the Human Sciences* (formerly *Philosophical Topics*) 12 (1981):129.

Jacques Taminiaux points out that Husserl strongly implies that there is a reciprocal founding-founded relationship between simple perception and categorial intuition. On the one hand, Husserl claims that no concepts (including the concepts "state of affairs" and "being") can arise unless actual or imaginary instances of these concepts are "set before our eyes." On the other hand, he also stresses that the fulfilling intuition of any expression describing a particular involves a surplus of sense that exceeds what is intuited in the simple perception of the particular feature or object. Husserl explicitly calls this surplus a "form," thereby associating its function with the work of presentation expressed by syntactical operators, and he also rejects the thesis that statements of perception simply mirror exactly what is given in simple perception. Everything points to the conclusion, therefore, that categorial intuition of the formal surplus expressed by descriptive terms is a condition for the perception of particular objects and their features.³³

Husserl's account of categorial intuition is thus decidedly more Aristotelian than Platonic. He essentially restates Aristotle's account of the relationship between first and second substance. Predicative articulations are fulfilled by two interdependent modes of intuition: 1) the intuition of a particular through its specific look, and 2) the intuition of the look itself as instanced in the particular. He also retrieves the Aristotelian notion that being in the sense of existence cannot be disassociated from being in the sense of predicative "belonging." Heidegger hints at the Aristotelian roots of Husserl's position, noting that Husserl's "decisive discovery" was to have looked to categorial intuition, rather than to transcendental synthesis, in order to account for our grasp of a perceived thing's substantiality. He adds, however, that Husserl's tendency to construe categorial intuition after the model of straightforward sensuous perception has the effect of obscuring the ontological difference between categorial modes of presentation and objects presented. The categorial surplus does not initially appear in the manner of an object; it is nonetheless genuinely given in the self-effacing fash-

³³ *Logical Investigations*, VI, #44; Jacques Taminiaux, "Heidegger and Husserl's Logical Investigations: In Remembrance of Heidegger's Last Seminar (Zähringen, 1973)," in *Dialectic and Difference: Finitude in Modern Thought*, trans. Robert Crease and James Decker (Atlantic Highlands, N.J.: Humanities Press, 1985), 70-1.

ion of a mode of presentation: ". . . substantiality is what, in its non-appearance, allows what appears to appear."³⁴ In an earlier passage, Husserl does distinguish between the ways in which things and their modes of presentation are given to us: "The appearing of things does not itself appear to us, we live through it."³⁵ However, Heidegger's point is well taken, for Husserl fails in this context to emphasize forcefully enough the difference between the oblique intuition of a categorial surplus and the thematic intuition of a thing and its features.

Husserl's description of how we intuit essences is also remarkably similar to Aristotle's account of the role of "subtraction" in arriving at the invariant features of a species-look. Like Aristotle, he holds that discernment of essences requires an ordered series of free imaginative variations in which we bracket this or that feature of an object until finally we grasp those invariant features without which the object in question would cease to be what it is.³⁶ However, he makes it clearer than does Aristotle that essences should always be regarded as incomplete modes of being even after they are rendered thematic and named as subjects of predication. Aristotle recognized, too, that an essence always remains incomplete, as opposed to the *tode ti* which is a complete entity. However, his celebrated remark that ". . . predicates of a predicate hold good of a subject" unfortunately suggests that genera relate to species in the same way that species relate to particulars, and thus gives the impression that species taken as subjects of generic predicates are

³⁴ See François Fédier, "Le séminaire de Zähringen," in *Question IV* (Paris: Gallimard, 1976), 314–5. See also Martin Heidegger, *History of the Concept of Time*, trans. Theodore Kisiel (Bloomington: Indiana University Press, 1979), 47–89; Jacques Taminiaux, *Lectures de l'ontologie fondamentale: Essais sur Heidegger* (Grenoble: Jérôme Millon, 1989), 81–8.

³⁵ *Logical Investigations*, V, #2.

³⁶ Edmund Husserl, *Experience and Judgment*, trans. James S. Churchill and Karl Ameriks (Evanston: Northwestern University Press, 1973), #82. Stanley Rosen's critique of Saul Kripke's tendency to conflate intuition and imagination does not apply to Husserl. Kripke's imaginative variations are limited only by logical rules which are thought to obtain in all possible worlds. Husserl's imaginative variations, like Aristotle's, are always guided by our ordinary intuitions of things in this world. Husserl does not indulge in the consideration of wildly improbable scenarios imagined as taking place within possible worlds. See Saul Kripke, "Naming and Necessity," in D. Davidson and G. Harmon, eds., *Semantics of Natural Language* (Dordrecht: Reidel, 1972); Rosen, *The Limits of Analysis*, 73–89.

complete entities. Frege rightly pointed out that this ambiguity is partially responsible for the pseudo-problem of the existence of universals which has continued to plague philosophy for centuries.³⁷ Husserl's distinction between pieces and moments eliminates all such confusion. He asserts unambiguously that an essence always remains a moment within the whole comprising a "this" and its "what." The imaginative process which fixes the identity and delineates the boundaries of an essence liberates it from dependence on any one particular instance. An essence is nonetheless always intuited as a founded moment rather than a separable part, in the sense that it can only be given in some perceived or imagined instance or instances.³⁸

Whereas Aristotle only hints at the possibility of higher universals that apply to heterogeneous objects, Husserl describes how such categories are originally derived by the process of "formalization." He defines this process by contrasting it with the more familiar process of generalization. Generalization progresses in an ordered series from some specific content, to a broader generic content, and then to an even more comprehensive generic content (for example, from human being, to animal, to living being). Formalization is a one-step procedure which from the outset brackets all determinate content and thus yields a strictly formal structure which can apply to any content whatsoever. However detached such forms may be from any specific contents, they nevertheless always remain incomplete without the complement of some content. Hence they, too, are dependent moments rather than independent pieces.³⁹

III

Modern philosophers have generally regarded concepts as mental representations. This notion has its roots in the earlier philosophic tradition. Although Plato assigned a nonsubjective status

³⁷ *Categories* 1b9-15; Gottlob Frege, *The Foundations of Arithmetic: A Logico-Mathematical Enquiry into the Concept of Number*, trans. J. L. Austin (Oxford: Basil Blackwell, 1959), #53; "On Concept and Number," *Collected Papers*, 190.

³⁸ *Logical Investigations*, II, #36-9.

³⁹ Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy. Book I*, trans. Frederick Kersten (The

to the Forms, his emphasis on their independence of matter and on the contemplative character of their intuition may well have prepared the way remotely for the modern thesis that to know is to have access to forms (ideas or concepts) within the mind's interiority. By contrast, Aristotle claimed that the soul has access to forms only insofar as they are manifested in the things of this world. Moreover, he does not seem to have thought it necessary to postulate any intermediary between the intellect and the things it knows. Indeed, he held that the intellect must itself be free of formal structure, and hence empty of content, so that it can become somehow the forms of things. Nevertheless, his suggestion that the forms of things are incorporated "within" the soul may also have prepared the way for the modern position. Medieval philosophers subsequently used the term "intentional" (and more frequently the term "objective") to refer to the mode of being had by things known in so far as they are present in the knower. It would no doubt be a serious mistake to read the modern interpretation of immanence into this interpretation of *esse objectivum*. The point of the distinction between intentional (objective) being and real (physical) being was to clarify Aristotle's thesis that the knower becomes somehow the form of the thing known without thereby entering into physical identity with the thing. It was thought that the intentional object ("inner word," "formal concept," "expressed species") functions as a unique sort of intermediary, that is, as a transparent sign through which the mind is related to reality. Indeed, Aquinas clearly maintained that the intentional object is the thing itself, as known: "... that which is understood can be said to be both the thing itself and the conception of the intellect."⁴⁰ Later Scholastic philosophers also generally thought of intentional directedness as having its ordinary terminus in transcendent things. Nonetheless, it was only a small step from the notion that concepts are special intramental signs to the modern thesis that they are the accessible representatives of the inaccessible forms of things. As Gabriel Picard puts it, the intentional species ("that mysterious scholastic entity") was the proximate forerunner of the modern "idea."⁴¹

Hague: Nijhoff, 1982), #13; *Formal and Transcendental Logic*, app. I, #3 and 7.

⁴⁰ Aquinas, *De Veritate*, q. 4, a. 2, ad 3. See also Robert Sokolowski, *Presence and Absence*, p. 62, n. 3.

⁴¹ Gabriel Picard, "Essai sur la connaissance sensible d'après les scolastiques," *Archives de philosophie* IV (1926): 1-93. John Yolton finds a

Husserl contends that there is no need to assign a mediating function to concepts, since we know things by directly intuiting their intelligible forms. He suggests that the tendency to regard concepts as mental intermediaries is due to a confusion between object-oriented and reflective stances of consciousness. Concepts belong to what he calls the "apophantic" domain, the realm of meanings. The apophantic domain does not appear at all when we are preoccupied with things and facts in the world. To turn away from the ontological realm towards the apophantic realm, we must adopt a reflective stance which considers facts as propositions, as mere suppositions. This shift in focus occurs quite naturally, whenever we explicitly frame a statement as a hypothesis, or whenever some claim that we have made about the world is challenged by an interlocutor. Propositions should therefore not be regarded as subjective duplicates of objective facts. Propositions are simply facts taken as supposed.⁴² Similarly, concepts and essences are the same things taken from different attitudinal stances (apophantic vs. ontological). Concepts are related to essences as propositions are related to facts.

Such is the power of the modern interpretation of concepts as mental intermediaries, and of its Scholastic predecessor (the theory that concepts are transparent but determining *media in quo*) that many commentators nonetheless interpret Husserl as ascribing

clue to the transition from medieval to modern interpretations of intentional presence in the exchange between Malebranche and Arnauld. On the premise that "cognition at a distance" is impossible, Malebranche adopted the position that we can only know what is literally present within our minds. He ridiculed Aristotle's theory that the mind somehow becomes the forms of things, saying that it requires the postulate of a "walking-mind" capable of moving about in material space; *Oeuvres complètes*, ed. Geneviève Rodis-Lewis (Paris: J. Vrin, 1972), I, p. 413. Arnauld retorted that Malebranche conflates cognitive presence with spatial or local presence; *Oeuvres de M. Antoine Arnauld* (Paris: Schouten, 1683), XXXVIII, p. 216. Malebranche's view tended to prevail among the British empiricists, although Yolton contends that Locke's position was actually closer to that of Arnauld than is generally recognized; Yolton, *Perceptual Acquaintance From Descartes to Reid* (Minneapolis: University of Minnesota Press, 1984), 62-8; 88-103.

⁴² *Logical Investigations*, Prolegomena, #67; *Formal and Transcendental Logic*, #41-5. Sokolowski observes that a fact is therefore an identity within the manifold comprised of three states. The selfsame fact may be intended in its absence, registered in its presence, and considered as a supposition (i.e., as a proposition); *Husserlian Meditations*, p. 52.

some sort of mediating function to the apophantic stratum. They refuse to take him at his word when he claims that concepts and propositions emerge only when we shift from an ontological to an apophantic focus. Acknowledging his rejection of the modern interpretation of concepts as mental entities, they typically adopt a Fregean strategy that assigns concepts and propositions to a "third realm" which functions mysteriously as a nonsubjective medium of reference.⁴³ The thesis that concepts play some sort of mediating role is no doubt based on the conviction that we surely have some marginal consciousness of the meanings of linguistic expressions as we use them.⁴⁴ Since Husserl clearly holds that speech acts are conscious performances, how can he coherently maintain that we are not conscious of concepts in the course of using words? Unfortunately he does not address this question explicitly. It seems likely, however, that he might agree to the following. To be in possession of a concept is to be able to use a term appropriately, to "get the point" made by its dictionary definition. This ability requires familiarity with a vast network of distinctions and nuances whose history it is impossible to trace completely, but whose ultimate justification lies in the intuitive disclosure of the looks of things.⁴⁵ Once in command of the standardized senses of words, we need no longer focus on those senses. When we articulate facts, we let ourselves be guided only by our categorial intuitions. Our choice of words is governed directly by the looks of the things we struggle to describe. Sometimes, however, we are more conscious of making linguistic choices. At such moments, we shift from a focus on things to a focus on the established senses of words. The ability to shift back and forth constantly between these orientations accounts for the

⁴³ See, for example, Dagfin Føllesdal, "Brentano and Husserl on Intentional Objects and Perception," in Hubert L. Dreyfus and Harrison Hall, eds., *Husserl: Intentionality and Cognitive Science* (Cambridge: M.I.T. Press, 1982), 36.

⁴⁴ Sokolowski calls the concept considered as mental intermediary a "transcendental mirage" which never appears when we talk about objects, but only when we attempt to talk about how we use words and how we think; "Exorcising Concepts," *Review of Metaphysics* 40 (1987): 454-5.

⁴⁵ The divergent interests of various peoples make for variations in the discernment of species-looks, and therefore for variations in the semantic values associated with the signifiers of different languages. However, the similarities between linguistic discriminations are such that adequate translations are usually possible, though never unproblematic.

interdependence of intuitive and linguistic discriminations. Occasionally, the priority of the intuitive manifests itself when new insights bring about semantic innovations and even conceptual revolutions.

Like Wittgenstein, therefore, Husserl holds that linguistic competence presupposes familiarity with the conventional meanings of words, but does not require a mental display of those meanings. On the other hand, Husserl also maintains that the thoughtful use of language is more than a routinized performance. Finding the appropriate words is not just a matter of familiarity with the rules of a language-game, for linguistic articulations are consciously guided by categorial intuitions. When we speak, we ordinarily focus upon what we see, or anticipate seeing, and only marginally upon what we are saying. Concepts and propositions emerge only in reflection. The intellect is free of mediating structures, for its mode of being is to become somehow the forms of all things.

IV

David Lachterman contends that Descartes' invention of analytic geometry radically transformed the ontological setting in which ancient geometry had been conducted. Greek mathematicians worked within a context where it was generally agreed that to be is always to exhibit a determinate nature. They therefore regarded individual geometric figures (like parabolas or ellipses) as tokens which exhibit specific types about which the theorems of geometry are concerned. By contrast, Descartes' general equation for any conic section does not denote any one specific type or even any one generic type in which specific types and their tokens might be said to participate. The equation does not spell out the characteristics of an intuited shape, but instead presents a formula for the production of shapes. Each evaluation of the variables bound within the equation yields a determinate conic section from a "continuum of abstract possibilities."⁴⁶ In short, for Descartes, to be *modo geometrico* is to be the value of a bound variable. Descartes rejoiced in the emancipation of such formulae from the constraints imposed

⁴⁶ Lachterman, *The Ethics of Geometry*, 199.

by the intuition of Euclidean shapes. He clearly thought that freedom from servitude to intuited forms would give to the geometer a potential for mastery over nature. He also realized that emancipation of the algebraic ordering of ratios from the constraints of homogeneity opened up the possibility of what Leibniz later called *mathesis universalis*: “. . . I came to see that the exclusive concern is with questions of order and measure and that it is irrelevant whether the measure in question involves numbers, shapes, stars, sounds, or any other object whatever.”⁴⁷ Lachterman detects in this passage an echo of Hobbes’s project of an ontology that equates the being of things with their mathematical intelligibility. He also shows how Descartes’ constructivist interpretation of his own equations prepared the way for the Kantian view that mathematics is pure poetry, and ultimately for the contemporary pragmatic view that scientific theories are cultural posits whose truth is reducible to pragmatic efficacy.⁴⁸

It seems to me, however, that Descartes himself and modern philosophers in general have exaggerated the ontological implications of the new geometry. Husserl’s interpretation of the new sense of “the formal” introduced by Vieta suggests a way in which Cartesian geometry may be founded upon an updated version of Aristotelian ontology. Husserl observes that Vieta’s algebraic technique liberated arithmetical thinking from the concept of number, in such a way that “. . . numbers and magnitudes no longer count as basic concepts but merely as chance objects of application.”⁴⁹ Husserl does not comment on Aristotle’s interpretation of the permutation of proportionals. However, his observation on Vieta suggests that the invention of algebra took the process of formalization a step beyond what was hinted at in Aristotle’s commentary on Eudoxus. Aristotle thought that the law of alternation of proportionals may be extended to heterogeneous objects by reason of a nameless property in which they share. Vieta no longer appealed to any such property common to classes of objects. According to

⁴⁷ René Descartes, *Rules for the Direction of Mind*, in *The Philosophical Works of Descartes*, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1984), I, p. 19.

⁴⁸ Lachterman, *The Ethics of Geometry*, 17–24; 178–9.

⁴⁹ *Logical Investigations*, Prolegomena, #54. See also *Formal and Transcendental Logic*, #26a.

Husserl, algebra is formal in the more radical sense that it focuses on what is common to mathematical theories rather than to their objects. Vieta thus tacitly adopted the apophantic focus proper to pure mathematics.⁵⁰ According to Husserl, pure mathematics considers "theory forms" and their correlative "manifolds" (*Mannigfaltigkeiten*) from an apophantic perspective. Husserl defines a theory as an ordered deductive series of propositions. Formalization of such a series yields what he calls a theory form. Manifolds are groups of objects whose status is determined exclusively by their being governed by such theory forms. The apophantic focus of pure mathematics brackets all concern about the ontological status of such manifolds. This is why mathematicians may legitimately talk about manifolds without raising ontological questions about their actuality or even their possibility: ". . . the mathematician as such . . . does not need to presuppose possible multiplicities, in the sense of multiplicities that might exist concretely . . . he can frame his concepts in such a manner that their extension does not at all involve the assumption of such possibilities."⁵¹ Husserl concludes that it is inappropriate to describe the object regions of non-Euclidean geometries as *spaces*, for Riemann and his successors were not talking about actual or possible ontological regions, but rather about manifolds defined exclusively as the correlates of theory forms. Husserl adds that even Euclidean geometry may be reduced by formalization to a theory form. It would then cease to be a theory of intuited world space, for its object region would be determined uniquely by the formalized Euclidean deductive discipline.⁵²

Husserl distinguishes between regional ontologies and formal ontology. The task of a regional ontology is to spell out the hierarchically ordered relationships between the essences proper to objects insofar as they belong to some region of being (that is, a domain determined by some highest concrete genus). Formal ontology deals with the fundamental categories and formal structures that govern the relationships and arrangements between objects in any region whatsoever.⁵³ Husserl defines the relationship between

⁵⁰ See J. Philip Miller, *Numbers in Presence and Absence: A Study of Husserl's Philosophy of Mathematics* (The Hague: Nijhoff, 1982), 109–13.

⁵¹ *Formal and Transcendental Logic*, #51.

⁵² *Ibid.*, #40. See Miller, *Numbers in Presence and Absence*, pp. 113–20.

⁵³ *Ideas I*, #9–10; *Formal and Transcendental Logic*, #24–5, 27b.

pure mathematics, logic, and formal ontology as follows: Pure mathematics in principle remains exclusively preoccupied with apophantic consistency. Formal logic focuses principally on such consistency, but also maintains an interest in ontological reference. Formal ontology considers categorial relationships from within an ontological focus. He characterizes traditional logic as "formal apophantics" in order to highlight its focus on the relationships between various propositional forms, and he characterizes mathematical logic as "formal ontology" on the grounds that its focus is directed upon the formalized structures of facts. Traditional logicians had some sense of the attitudinal shifts involved in the interplay between apophantic and ontological domains. By contrast, modern mathematical logicians constantly blur the differences between pure mathematics, logic, and formal ontology. As a result, they often misinterpret their own achievements. For example, when they attempt to deal with the truth-values of propositions without a clear understanding of the relationship between propositions and facts, they fall into fundamentally obscure paradoxes and inconsistencies.⁵⁴

Frege's extensional logic provides an instructive example of the confusion that ensues from a failure to define properly the relationship between apophantic and ontological domains. Frege contends that the extension of a concept is best described as the value-range (*Wertverlauf*) of a function. Analytic geometry, he observes, provides us with an "intuitive representation" of a value-range. If we construe the numerical value of an abscissa as the argument, and the numerical value of the ordinate of a point as the corresponding value of the function, we may regard any point of the resultant curve as "an argument together with the associated value of the function." If two different functions yield the same curve for whatever number we take as the argument, we may say that the two functions have the same value-range. A value-range is therefore the ensemble of a function's completed correlations, the ordered pairs comprised of arguments and resultant truth-values. For example, the value-range of the concept "being German" would be the set of paired correlations between all possible arguments and the truth-values: (Plato, the False), (Napoleon, the False), (Frege, the

⁵⁴ *Formal and Transcendental Logic*, #11, #23b; #52-4. See Sokolowski, *Husserlian Meditations*, pp. 271-89.

True), (The Washington Monument, the False), and so forth.⁵⁵ This analysis blurs the distinction between the apophantic domain of theory forms and manifolds and the ontological domain of essences and objects. There is no way to make the transition from the apophantic notion of a value-range (which is exclusively defined by the theory form of Frege's logic) to the ontological notion of a family of things which share some property. Convinced that any appeal to cognitive intuitions would subjectivize logic, Frege eliminates the ontological primacy that Aristotle had given to the presentational role of species-looks, and thus renders the move from sense to reference incoherent. Nevertheless, his logic tacitly relies on the very intuitions it seeks to eliminate. Unless concept-functions are endowed with the intuitive powers that Frege's critique of psychologism denies to human beings, on what basis could they possibly determine which arguments yield which truth-values?

Descartes' allusions to the potential for mastery of nature provided by his new geometrical method testify to an analogous confusion concerning the relationship between apophantic and ontological realms. He seems to hesitate between two interpretations which we might call geometry as manifold theory and geometry as ontology.⁵⁶ On the one hand, his remarks in the *Regulae* and his practice in the *Geometry* suggest that his intention was to free his technique from all dependence on intuited actuality. Commenting on Rule Six, which deals with the orderly deduction of complicated things from simple things, he reveals the extent of his break from the traditional ontology of intuited natures: "Although the message of this Rule may not seem very novel, it contains nevertheless the main secret of my method; and there is no more useful rule in this whole treatise. For it instructs us that all things can be arranged serially in groups, not insofar as they can be referred to some ontological genus (such as the categories into which philosophers divide things), but insofar as some things can be known on the basis of others."⁵⁷ He puts this method into practice when he sets out to solve the problem which had been left unsolved by Pappus. The

⁵⁵ Frege, "Function and Concept," *Collected Papers*, 141-2. See Gregory Currie, *Frege: An Introduction to His Philosophy* (Brighton: Harvester Press, 1982), 68.

⁵⁶ See Miller, *Numbers in Presence and Absence*, p. 133, n. 43.

⁵⁷ *The Philosophical Works of Descartes*, I, p. 21.

task is to establish that, given three, four, or more lines in fixed positions, and lines drawn at fixed angles to those given lines in such a way that the products of the drawn lines have determinate ratios, the point of their intersection necessarily lies on one of the conic sections (or on a more complex locus of points). Descartes begins by considering two of the lines specified by the problem, and then gradually relates all the other lines to these lines by establishing fixed ratios between sides of overlapping triangles created by the intersections of the various lines. Exploiting Euclid's theorem that corresponding sides of similar triangles remain in constant proportion to one another, he assigns a fixed algebraic value to each such constant proportion until finally he establishes a general formula which interrelates all of the fixed ratios.⁵⁸ The key to his method is the move from generalization to formalization which occurs at each step in the proof. Lachterman points out that Descartes no longer really takes line-segments literally as linear magnitudes, for he implicitly considers them as symbols for terms "in a sequence of ratios among any magnitudes whatever."⁵⁹ He thus constantly takes each component of the construction as a symbolic representation of a structure of intelligibility for which, as Aristotle put it, there can be no name. All of this suggests that Descartes' general formula should be regarded philosophically as an example of what Husserl meant by a theory form that governs a manifold. On the other hand, Descartes never explicitly brackets the ontological status of the lines, angles, and figures talked about in his proof. Moreover, he never clearly defines the mode of "existence" proper to the determinate conic sections produced by evaluation of the bound variables in the general equation. He thus seems to want to have it both ways. He implicitly rejects the traditional ontological interpretation of geometry, but he also suggests that his method yields ontological results. Husserl's distinction between apophantic manifolds and ontological objects highlights the inconsistency of these two claims. Although a manifold theory may sometimes have genuine applications within the ontological domain, as was the case for Riemann's geometry, the transition from apophantic to ontological domains does not occur by fiat. The evidence requisite in manifold

⁵⁸ René Descartes, *Geometry*, trans. David E. Smith and Marcia L. Latham (New York: Dover, 1954).

⁵⁹ Lachterman, *The Ethics of Geometry*, 168.

theory differs in kind from the evidence needed for ontological claims. Like carefully framed judgments, theorems in manifold theory must be coherently articulated and their proofs must be carried out with comprehension of each step. However, the evidence for the theorems is based not upon intuitions into the natures of their supposed objects, but upon a lucid grasp of the meanings of the governing axioms.⁶⁰ Ontological claims, on the other hand, are always founded on the kind of evidence yielded by intuitions of things and their intelligible structures.

Husserl's distinctions clarify the scope and limits of the project of *mathesis universalis*. Vieta's algebra, Descartes' geometry, and Leibniz's *ars combinatoria* are all contributions to a formal apophantic science whose goal is to develop a theory of theory forms.⁶¹ Such a science is neither a complete ontology nor even a branch of ontology. Moreover, its theoretical apparatus has no ontological import. Aristotle's ontology needs to be broadened so as to include a branch devoted to formal ontology, but it does not need to be jettisoned and replaced by an interpretation of being as the locus of mathematical virtuosity.

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⁶⁰ *Formal and Transcendental Logic*, #16–22. See Miller, *Numbers in Presence and Absence*, p. 118.

⁶¹ *Logical Investigations*, Prolegomena, #60. See Sokolowski, *Husserlian Meditations*, p. 273.

PHENOMENOLOGY AND SCIENTIFIC REALISM: HUSSERL'S CRITIQUE OF GALILEO

GAIL SOFFER

ACCORDING TO HUSSERL, THE REVOLUTION brought about by the new mathematical science of the seventeenth century was primarily an *ontological* one: a shift in the conception of the real. That Husserl opposes the new Galilean-Cartesian ontology is clear. This much is evident from the potent rhetoric of the *Crisis* declaiming Galileo as an "entdeckender und verdeckender Genius" (a discovering and concealing genius),¹ forgetful of the lifeworld, failing to grasp what the mathematical-empirical method he brought to such a degree of perfection actually achieves. Indeed, even without the ringing *Crisis* passages, one could already expect that Husserl, the phenomenologist, would oppose the Platonizing scientific realism of a Galileo or a Descartes. However, Husserl's critique of Galileo poses many puzzling questions, questions which are not directly addressed in the *Crisis*, and which can be answered only in terms of the broader position outlined by Husserl elsewhere. To wit: what is the more precise content of Husserl's objections against Galileo, and how are these justified? Further, if scientific realism is to be rejected on phenomenological grounds, does this imply that a phenomenological approach is necessarily instrumentalist? Finally, what solution does Husserl's thought offer to the realism/instrumentalism debate?

The course I will take in this paper will be as follows. In the first part, I will reconstruct Husserl's critique of the scientific realism characteristic of seventeenth-century thinkers such as Galileo, Descartes, and Locke. In the second part, I will elucidate the positive

¹ Edmund Husserl, *Die Krisis der europäischen Wissenschaften und die transzendente Phänomenologie*, ed. Walter Biemel, Husserliana, vol. 6 (The Hague: Martinus Nijhoff Publishers, 1954), 53 (§9 h). (In subsequent references, this work is referred to as *Krisis*. All page numbers are from the Husserliana edition. Section numbers are included in parentheses for readers with other editions.)

conception of the ontological status of science which follows from Husserl's phenomenology, and the resulting resolution of the realism/instrumentalism debate. Here I will argue that a consistent development of Husserl's thought does *not* lead to instrumentalism, but to an epistemically sophisticated version of realism, a version which dissolves the problem of the "really real."

I

According to Husserl, the central pillar of the new scientific ontology is the doctrine of primary and secondary qualities. This doctrine is to be found not only in Galileo (*The Assayer*), but also, with minor variations, in Descartes (*Rules, Dioptrics, Principles*) and Locke (*Essay*), among others. In the passage often cited as the first formal statement of the doctrine, Galileo notes that we need this distinction to evaluate the ambiguous Aristotelian principle, "motion is the cause of heat." Here, maintains Galileo, everything turns on one's concept of "the hot." A correct concept of the hot, he argues, is of the hot as it exists in the object, and not as it exists in our senses. Now, he posits, the only properties which belong inseparably to objects are shape, motion, location in place and time, number, and contact. Separable properties such as color and taste, by contrast, do not belong to objects, but rather are sensations produced in us by the mechanical action of bodies possessing "primary" qualities only, acting upon our sense organs.²

Thus, following Husserl in the *Crisis*,³ the doctrine of the primary/secondary quality distinction may be reconstructed as follows:

² Galileo Galilei, *II Saggiatore*, in *Opere*, ed. Fernandino Flora (Milan: Ricciardi, 1953), 311-15. Descartes expounds a similar doctrine, arguing that the primary qualities include only extension, figure, position and motion, but not solidity or weight; see René Descartes, *Principia Philosophiæ* in *Oeuvres de Descartes*, vols. 8-9, ed. Charles Adam and Paul Tannery (Paris: Vrin, 1973), 22-23, 33-34, 42, 46, 318-323 (Part I, articles 48, 68-70; Pt. II, art. 4, 11; Pt. IV, art. 191-8); *Regulæ ad directionem ingenii*, in *Oeuvres de Descartes*, vol. 10, 412-19 (Rule 12); *Dioptrique*, in *Oeuvres de Descartes*, vol. 6, 84-6 (Discourse One). By contrast, for Locke the primary qualities are extension, figure, solidity, and mobility. See John Locke, *An Essay Concerning Human Understanding*, ed. Peter Nidditch (Oxford: Clarendon, 1979), 134ff (Book Two, chapter 8, article 9ff). (These works are hereafter referred to in notes as *Saggiatore*, *Principia*, *Regulæ*, *Dioptrique*, and *Essay*, respectively. All page numbers are from the above editions.)

³ *Krisis*, 54 (§ 9 i).

(1) certain specifically sensible qualities exist only as sensations in the subject, and not in the objects to which they are attributed by everyday perception; (2) these secondary qualities are the causal consequences of events taking place in physical nature; (3) this physical nature contains mathematized properties only (although there is some disagreement among the seventeenth-century realists as to precisely *which* mathematized properties it contains); (4) thus strictly speaking, the world of sensible experience is not real, and the usual propositions concerning it are false. However, this world is not wholly meaningless, since it vaguely indicates the nature of the true world, as effects indicate their cause.

As Husserl emphasizes in the *Crisis*, the notion that the true world is a mathematized realm of pure bodies causally producing the merely subjective phenomena of everyday experience is so obvious to us today that it is difficult to realize what an extraordinary and perplexing doctrine it really is. However, I would argue that the central import of Husserl's critique of the Galilean view is its challenge to the claim that the mathematical-physical world is the "really" real one, or at least the *more* real one in comparison to the merely phenomenal one of everyday life. At the same time, my position is not that Husserl denies the world of science is real, but rather that he holds that Galileo has failed to comprehend the *sense* in which it is, thereby distorting the ontological relation between science and everyday life. The crucial question here is: what do Galileo and the other seventeenth-century realists *mean* when they hold that the mathematical-physical world is the "more" or "really" real one? This is a question they and even most contemporary realists never directly confront. Instead, they tacitly purport to be adopting the familiar, commonsense conception of reality, merely applying it more carefully and consistently than is done by common sense itself. Thus they claim to be proposing not a new general *conception* of the real, but merely a new *list* of realities, using the old conception. However, surreptitiously they do and must substitute a new general conception so as to be able to distinguish between the new "really real" and what is and would remain real by the lights of common sense.

In the remainder of this part of the paper, I will set forth three possible senses of the "really real," and argue that each one is unsatisfactory. The first two are plausibly senses with which the seventeenth-century realists implicitly operated. The third, as I will

argue, although perhaps a more prevalent contemporary view, is not only unsatisfactory, but also not plausibly attributable to these early modern thinkers.

The first conception suggested by the early modern scientific realists is that the "really real" is what is perceived or found in the object, without any contribution on the part of the subject. That is, as argued by Descartes, some cases of perception follow the model of sense-deception, as when a person has jaundice and everything appears yellow. However, this yellow color is an illusion because it is produced by the subject and merely projected onto objects, when in fact it does not inhere in the objects themselves. By contrast, other cases of perception constitute a "pure on-looking" which represents the object or property without any addition, distortion, or contribution from the subject. In these cases, the represented properties simply inhere in the objects themselves, are wholly independent of the subject for their existence, and in this sense are "really real."⁴

Here we can further distinguish between two versions of the "pure on-looking" theory of perception. According to the first, there are some instances of perception in which the subjective faculties do not mediate at all: the soul directly apprehends the objective reality, and this objective reality is in direct causal relation with the soul. According to the second version, however, and the one which clearly is espoused by Descartes, *all* perception is mediated by the subjective faculties, even in the case of the perception of primary qualities such as extension, and "pure-onlooking" does not require *immediacy*, but only *objective accuracy*. Here too, according to Descartes, there is a long chain of causal interactions in which the (mechanistically conceived) object acts upon the sense organs, producing mechanical changes. Other mechanical changes are then produced in the nerves, then in the brain, finally producing the idea or perceptual sensation in the soul. Similarly with secondary quality perception, information about the object is encoded and transmitted by the subjective faculties in several different forms bearing no obvious resemblance to the way this information exists in the object itself (for example, extension is encoded as changes in the motions or shape of nerve matter, brain matter, and so forth). In

⁴ *Regulæ*, 422-3 (Rule 12).

both kinds of perception, the transforming mediation carried out by the subjective faculties is essential. The crucial difference, however, is that in primary quality perception, the idea perceived by the soul is an objectively accurate representation of the property at the beginning of the causal sequence; whereas in secondary quality perception, it is not. Although in both cases the subjective faculties *mediate*, primary quality perception is still a "pure on-looking" in the sense that here the faculties do not distort, but accurately represent the objective state of affairs.⁵

However, the now familiar difficulty facing this elucidation of the "really real" is its epistemic naiveté. For there is no way to know whether a given instance of perception is a case of "pure on-looking," even in the second, more sophisticated sense. To judge whether a perception accurately represents the objective state of affairs causing it, one would need to compare the possibly distorted perception with a reliably undistorted representation of the causing object. But it is just this latter for which we have no justified standard of comparison. Arguably, all perception, imagination, and even thinking involves constitutional activity on the part of the subject which "distorts" in the Cartesian sense (that is, presents an inaccurate representation of the objective cause), so that there are *no* cases of "pure on-looking." For example, as argued by Berkeley and Kant, it could be maintained that even allegedly primary qualities such as extension, location in space, and time are products of subjective faculties (either human or divine) and not properties inhering in the object causing the perception, and so they are "distortions" in the Cartesian sense. And even if, *contra* these thinkers, there were cases of pure on-looking, it would be impossible to know that they are such.⁶

According to a second possible conception of the "really real," however, it is not that the "really real" is perceived without any

⁵ *Dioptrique*, 112-4 (Discourse Four), 132-7 (Discourse Six).

⁶ Of course, Descartes attempts to resolve this difficulty by holding that we can distinguish between objectively accurate and distorted perceptions because the former are clear and distinct. But clarity and distinctness can serve this function in his analysis only because he retains a teleological conception of the human intellect, according to which it is naturally suited to grasping the true nature of reality and so cannot err if properly employed; or phrased theologically, because God is not a deceiver.

contribution by the subject, but rather that the “really real” is what is or would be perceived by an ideal cognitive subject, with ideally perfect intellectual and perceptual powers. Thus the task we must carry out in order to know the true constitution of nature is not the obviously impossible one of cognizing without using our faculties, but rather of employing them in such a way as to grasp reality as it would be apprehended by a subject unencumbered by the limitations of the *human* faculties. The move from phenomenal to physical reality, then, would involve employing reason to abstract from those sensible qualities due to contingent features of the human sense organs, and to identify those qualities which would be apprehended even by an ideal cognitive being.

According to this second interpretation, the claim that the mathematical-physical world is the “really real” one amounts to the claim that this is the way the world would be perceived by an ideal cognitive subject, such as God. However, a daring critique of this position is mounted by Husserl in *Ideas I*, where he argues that no being whatsoever, not even God, could directly perceive a physical world of objects possessing primary qualities only. If there is to be any cognitive access at all to the “true” world of physics, it can only be by the indirect route of ordinary sense experience, no matter what the faculties of the subject. But if this is the case, then the second elucidation of the “really real”—that it is what would be perceived by an ideal cognitive subject—fails.

This argument, which derives from various Husserlian positions, may be reconstructed as consisting of two steps. In the first, it is held that it is impossible in principle to *imagine* physical bodies possessing primary but no secondary qualities. In the second, it is held that it is impossible in principle to *perceive* such bodies.

Galileo, Descartes, and Locke all hold that it is possible either to imagine or to perceive bodies without secondary qualities, and, as will be discussed further in what follows, this assertion is crucial to their realism. This possibility is asserted most directly by Locke, who claims that if only our senses were sharper, we would perceive particles of matter possessing primary qualities alone.⁷ More el-

⁷ This, Locke argues, is demonstrated by our experience of looking at blood under a microscope: whereas normally the entire fluid appears red, under the microscope only one corpuscle appears red, and the rest is “colorless”; *Essay*, 301-2 (Book Two, ch. 23, art. 11).

liptically, Galileo maintains that primary qualities can be distinguished from secondary ones because we cannot imagine a material substance separated from its primary qualities, while this is not the case for secondary ones.⁸

The position of Descartes is rather more complex, and it could even seem that he holds only that it is possible to *conceive* of bodies with primary qualities alone, not to perceive or imagine them, and that this is sufficient for his realism. For example, in the *Principles*, Descartes argues that from the sole fact that we have an *idea* of an extended substance, we can know with certainty that it can exist; and more generally, God can create whatever we can distinctly understand.⁹ On the other hand, when it is a matter of determining which properties are primary and which secondary, Descartes does call upon the imagination, connecting the possibility of separability in *imagination* (not merely in thought) with secondary-quality status, and inseparability with primary.¹⁰ Yet this mode of argumentation implies not only that Descartes believes we can imagine bodies without secondary qualities (without hardness, color, weight, and such), but also that this possibility is essentially bound up with our ability to distinguish primary qualities from secondary ones. For if mere thought without imagination were enough, it would have sufficed for Descartes merely to have referred us to our concept of body, and to have pointed out, for example, that hardness is not

⁸ Thus he writes in *The Assayer*: "né per veruna imaginazione posso separarla da queste condizioni" ["nor can I separate a material substance from these conditions in any act of imagination"]; *Saggiatore*, 312. However, Galileo (whose treatment of the distinction is in any case extremely brief) does not clearly distinguish between imagination and conceptual thought.

⁹ *Principia*, 28 (Pt. I, art. 60).

¹⁰ For example, in order to justify the claim that hardness is not a primary quality, Descartes imagines a world in which bodies always flee at the same speed at which our hands approach them. In such an imaginary world, he points out, there would not be any sensation of hardness, but there would still be bodies; therefore, he concludes, hardness is not a primary quality; *Principia*, 42 (Pt. II, art. 4). Similarly, when he later attempts to reduce our idea of a body to its essential nature (i.e., its primary qualities), he does not argue merely by way of the *concept* of a body, but rather by way of *imagination*. Thus he imagines the transformations which a stone might undergo and still remain a body (e.g., loss of hardness by melting, loss of color by becoming transparent, loss of weight by being turned into fire); *Principia*, 46 (Pt. II, art. 11).

necessarily contained in it. The thought- (or, more properly, imagination-) experiments he outlines would have been superfluous.

Thus while on the one hand Descartes explicitly maintains that perception by the intellect is enough, on the other he implicitly relies upon the resources of the imagination. This apparent contradiction can be resolved by considering a general methodological principle stated in the *Rules*: in order for the intellect to attain a clear and distinct perception of anything corporeal, it must summon up an abbreviated representation of the thing as it appears to the external senses, that is, an image.¹¹ This rule explains the important role the imagination plays in the establishment of Descartes' basic ontology: although a clear and distinct perception by the intellect is sufficient to establish the reality of bodies possessing primary qualities only, in order for us to attain such a perception, we require some representation of the imagination. In the case of things corporeal, pure thought might be enough for a concept, but not for an intellectual perception which is clear and distinct. Hence, although in a manner different from Locke (and possibly also from Galileo), Descartes too affirms that it is possible to imagine bodies without secondary qualities.

However, in attacking this common claim of the seventeenth-century realists, Husserl develops an objection already raised by Berkeley in the *Treatise Concerning the Principles of Human Knowledge*. Berkeley writes:

But I desire anyone to reflect and try, whether he can by any abstraction of thought, conceive the extension and motion of a body, without all other sensible qualities. For my own part, I see evidently that it is not in my power to frame an idea of a body extended and moved, but I must withal give it some colour or other sensible quality which is acknowledged to exist only in the mind. In short, extension, figure, and motion, abstracted from all other qualities, are inconceivable.¹²

Similarly, in §40 of *Ideas I*, Husserl argues that the primary qualities discussed by scientific realists cannot be the very same *phenomenal* qualities which are given in ordinary experience (such as visual extension, tactile solidity), phenomenal qualities which

¹¹ *Regulæ*, 417 (Rule 12).

¹² George Berkeley, *A Treatise Concerning the Principles of Human Knowledge*, in *The Works of George Berkeley, Bishop of Cloyne*, vol. 2, ed. T. E. Jessop (Nedeln: Nelson and Sons, 1979), p. 45 (Article 10).

remain after other specifically sensible qualities (like visual color, tactile warmth) have been removed by abstraction. This is because, as Berkeley maintained, properties such as (phenomenal) extension are unthinkable without other sensible qualities.¹³

In contrast to Berkeley (or Galileo), however, Husserl's critique draws a sharp distinction between *inconceivability* and *unimaginability*.¹⁴ Thus Husserl would be willing to grant that it is possible to *think* in a purely signitive manner of a physical body possessing extension, but no sensible qualities. His claim is rather that it is impossible to form a concrete *image* of such a body, an image, say, of a body which is visually extended but not colored, or of a body which is tactilely extended but without texture or consistency. That this is impossible is to be demonstrated by carrying out the relevant thought-experiment, or by free variation in fantasy, as Husserl terms it.¹⁵

¹³ "Gedenke ich aber bekannter Lehren der Physik, so ersehe ich sogleich, daß die Meinung solcher vielbeliebter Sätze nicht etwa die wörtliche sein kann: als ob wirklich vom wahrgenommenen Dinge nur die 'spezifisch' sinnlichen Qualitäten bloße Erscheinung seien; womit gesagt wäre, daß die nach A b z u g derselben verbleibenden 'primären' Qualitäten zu dem in objektiver Wahrheit seienden Dinge gehörten, neben anderen solchen Qualitäten, die nicht zur Erscheinung kämen. So verstanden hätte ja der alte Berkeleysche Einwand recht, daß die Ausdehnung, dieser Wesenskern der Körperlichkeit und aller primären Qualitäten, undenkbar sei ohne sekundäre" ["But if I think of well-known physical theories, I immediately see that the intended meaning of such well-loved propositions can hardly be the literal one. For according to this, only the 'specifically' sensible qualities of the perceived thing would be mere appearances; which would mean the 'primary' qualities remaining after the r e m o v a l of these would belong to the objectively existing thing, together with other such qualities which do not appear. Understood in the following way, the old Berkeleyan objection was right: extension, the essential nucleus of corporeality and all the primary qualities, is inconceivable without secondary ones"] (*Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie, Erstes Buch*, ed. Walter Biemel, Husserliana, vol. 3 [The Hague: Martinus Nijhoff Publishers, 1950], 90 [§40]. In subsequent references, this work will be abbreviated *Ideen I*. All page numbers are from the Husserliana edition.)

¹⁴ Although admittedly, in following Berkeley's terminology, Husserl does not do so in the passage cited in the previous note.

¹⁵ Husserl distinguishes imagination from perception, on the one hand, and from understanding, on the other, by the descriptive character of each type of content. In ordinary sensible perception, the content towards which we are directed (the sensible thing) is experienced as the object 'itself', and not as a symbol, representation, or copy of an object. By contrast, in imagination, the content towards which we are directed (the image) pre-

An obvious objection to this method of proof is that it demonstrates only empirical impossibility, an impossibility of imagination for beings such as ourselves, but certainly not for any beings whatsoever.¹⁶ However, Husserl argues that the impossibilities turned up by free variation are of a peculiar sort, a sort which needs to be distinguished very clearly from merely logical or analytic impossibility, on the one hand, and empirical impossibility on the other.¹⁷ To elucidate this claim it will be useful briefly to consider Husserl's much-discussed example of an eidetic impossibility in the Third Logical Investigation: "no color without extension." This principle is demonstrated by imagining an intuitive illustration of color, then attempting to vary the extension of this illustration to nothingness. When such an attempt is made, one finds that as the extension of the illustration reaches the zero-limit, its color vanishes as well. This proves that color cannot be given without extension. However, this impossibility arises not from the limitations of the empirical constitution of the subject, but from what is *meant* in the intention of color.

According to Husserl's general analysis, an intention already implicitly contains a specification of what can and cannot be recognized as an intuitive instantiation of an intention of this type. In free variation, the imagination is used to explore the manifold of

sents itself as a likeness of an object, a representation which resembles another object more or less closely. Further, unlike physical images (such as paintings or statues), the images of the imagination are (given as) immanent act-contents: they do not exist apart from imagining act. Finally, whereas perception generally has an assertoric positing character, so that its objects are given as real, the object of which one has an image may well be (given as) hypothetical, possible, or even fictitious. (Thus contrary to the view of traditional empiricists, the imagination need not be merely a 'poor copyist', wholly dependent upon perception for material to image.) Imagination is distinguished from purely conceptual understanding, on the other side, by its intuitive fullness: in imagination, the object is actually presented (although only by way of a likeness), whereas in mere thought the object is referred to, indicated but not shown, even indirectly.

¹⁶ Tugendhat, for one, develops this objection at length. See Ernst Tugendhat, *Der Wahrheitsbegriff bei Husserl und Heidegger* (Berlin: Walter de Gruyter Verlag, 1967), 158-60.

¹⁷ Husserl terms these impossibilities "essential" or "eidetic," and his analysis of them constitutes an important contribution to traditional analysis of the modalities. This point has been discussed by J. N. Mohanty in "Phenomenology and the Modalities," a lecture delivered at the New School Husserl Symposium, December 5, 1989.

possible perceptual presentations correlated to a given intention, and to make the limiting recognition conditions explicit. But since these possibilities and impossibilities arise from *meanings*, they are independent of the empirical constitution of subjects.

Thus Husserl's claim is that, for example, there can be no color without extension, because anything unextended which presents itself could not be recognized as an instantiation of what is meant by color. Even if there were beings with faculties of perception and imagination quite different from our own, no matter what they might imagine, they could not imagine anything unextended which would fulfill the recognition conditions of "color."

However, it is important to note that although this type of eidetic impossibility arises from *meanings*, it is not to be equated with analytic impossibility. An analytic impossibility arises from concepts, and is an impossibility for merely signitive thought; for example, the concepts red without color or a square circle both yield analytic impossibilities. By contrast, it is perfectly possible to *think* of color without extension (as it is not possible to think of red which is not colored), but it is not possible to fulfill this intention in intuition. An eidetic impossibility is an impossibility for *intuition* and arises from the implicit references to intuition contained in intentions.¹⁸

¹⁸ As has been noted by Elisabeth Ströker and Dallas Willard, Husserl's distinction between intuition and signitive thought is an extension of Brentano's distinction between authentic and unauthentic representation. This distinction is initially employed by Husserl in the realm of mathematics, especially arithmetic. Thus for the early Husserl, the paradigmatic case of signitive thought is an arithmetical calculation involving large numbers: here the entities about which one judges (the numbers) are in no way present or shown to consciousness, but simply referred to by way of symbols, representatives which bear no resemblance to the objects they denote. By contrast, in the case of an intuitive execution (which, for psychological reasons, is possible for us only with fairly small numbers), the numbers and operations are illustrated by objects or images (e.g., dots) and not merely symbolized. Taken more generally, an intuitive act is one in which the object is in some way presented, whether directly or by way of a likeness or instantiation; whereas in signitive thought, the object is symbolized or referred to in an empty way. See Elisabeth Ströker, "Husserl's Evidenzprinzip. Sinn und Grenzen einer methodischen Norm der Phänomenologie als Wissenschaft," *Zeitschrift für philosophische Forschung* 32.1 (1978): 1-30; reprinted in *Phänomenologische Studien* (Frankfurt: Vittorio Klostermann Verlag, 1987); Dallas Willard, *Logic and the Objectivity of Knowledge: A Study in Husserl's Early Philosophy* (Athens,

The argument that it is *in principle* impossible to imagine a body with primary but no secondary qualities follows the form of the argument for "no color without extension." Here, too, it is not merely that we find ourselves unable to produce an image of, say, an extended object without any secondary qualities. Rather, it can be recognized that this impossibility arises from the fulfillment conditions implicit in the intention itself: anything lacking all secondary qualities could not be recognized as a fulfillment of what is meant in the intention, "extended physical object." (Thus, this case is to be contrasted to the case of, for example, the inability distinctly and simultaneously to imagine one hundred dots. The possibility of the latter image is not ruled out by the intention of one hundred dots, but rather by psychological limitations.)

Further, according to Husserl's analysis, such in-principle impossibilities of imagination are also in-principle impossibilities of perception. This is because the same manifold of recognition conditions applies to fulfillments of an intention in imagination as to its fulfillment in perception. Thus, for example, if nothing unextended could count as an image of (visual) color, then nothing unextended could count as a perceptual presentation of color, either. (This constitutes the "transcendental" function of the imagination in determining the possibilities of experience of an object of a particular type.)

Thus, the position that it could be possible to imagine or to perceive bodies with primary qualities only is to be rejected, and similarly, the second elucidation of the sense of the "really real" cannot be admitted.

Now a *third* possible elucidation could be by way of the *explanatory value* of the ontology posited by the primary/secondary quality distinction. That is, if we suppose the physical world to possess only primary qualities, we can account for our experience of secondary qualities, and also for specific details of this experience which cannot be explained when it is assumed that secondary qualities really inhere in things (for example, the fact that colors change dramatically depending upon lighting). On *this* interpretation of

Oh.: Ohio University Press, 1984); as well as Marvin Farber, *The Foundation of Phenomenology: Edmund Husserl and the Quest for a Rigorous Science of Philosophy* (Cambridge, Mass.: Harvard University Press, 1943; reprint, Albany: State University of New York Press, 1968).

the "reality" of the mathematical-physical world, it is irrelevant whether or not this world can be perceived by any being. All that matters is that the theory positing and determining this world can successfully account for such perceptual-phenomenal experiences as do occur.

However, as is well known, many difficulties are involved in explicating the sense of "explanation" in the claim that physicalist theories "explain" the everyday world and ordinary experience of it. Here we will consider two senses, and point out difficulties in each of them.

According to the first, such theories explain in the sense of giving a causal account, and similarly, the mathematical-physical realm is the "really real" one in the sense that it is the cause of the sensible-phenomenal world. But here it must be asked: is "cause" understood as anything over and above "an actual or possible phenomenal given, upon which other phenomenal givens follow, according to a rule?"¹⁹

Now if it is accepted that a cause is a phenomenon related to other phenomena in a rule-governed way, then it follows that the mathematical-physical thing is not a cause in the specified sense. For, as was argued above, the mathematical-physical thing is not a possible given of sensible perception. If, by contrast, one attempts to employ a concept of cause according to which a cause is something over and above actual and possible perceptions and their rule-ordered sequences, then this conception is illegitimate, for the sorts of critical reasons put forward by Husserl and Kant. That is, because a cause in the precritical sense escapes actual and possible experience, it is impossible for us ever to know or even to give evidence that what we allege to act as a cause really does so. Thus claims about precritical causes encounter the same difficulty as the first elucidation of the "really real."²⁰

Now an alternate reading of "explanation" could gloss "explain" as "predict." On this reading, the "reality" of the mathematical-

¹⁹ This is the critical concept of "cause" set forth by Kant: "Das Schema der Ursache und der Kausalität eines Dinges überhaupt ist das Reale, worauf, wenn es nach Belieben gesetzt wird, jederzeit etwas anderes folgt. Es besteht also in der Sukzession des Mannigfaltigen, in so fern sie einer Regel unterworfen ist" ["The schema of cause and of causality of a thing in general is the real upon which, whenever it is posited, something else always follows. Therefore it consists in the succession of the manifold, insofar as it is subjected to a rule"] (*Kritik der reinen Vernunft*, in *Ge-*

physical world would be demonstrated by the success of the theory according to the hypothetico-deductive method: if a theory positing a mathematical-physical ontology allows us to predict phenomena at the level of ordinary experience, then the ontology is correct. Here again, "reality" is independent of the possibility of perceiving or imagining entities of this sort.

However, the obvious difficulty with this last interpretation of the "really real" is that it opens the entire scientific project to the charge of instrumentalism. As was repeatedly argued around the time of Galileo and Descartes (as well as before), that a theory can successfully predict phenomena does not yet demonstrate that the entities described by the theory are *real*, but only that the theory is a useful instrument for predicting and controlling "reality" in the sense of what is observed.²¹ Thus this approach to the "really real" threatens to lead us to the conclusion that modern science does not present us with an ontology at all, but only with an extremely sophisticated *technology*. Ontologically, it would leave everything unchanged.

The early modern realists discussed here do not attempt to establish the ontological import of their scientific theories by way of their explanatory or predictive power, clearly sensitive to the problems of instrumentalism this would imply. For example, in article 203 of Part IV of the *Principles*, Descartes asks, how can we know that our theories about the imperceptible, underlying structure of

sammelte Schriften, vols. 3-4, Royal Prussian Academy of Science Edition [Berlin: G. Reimer, 1911], A144/B183).

²⁰ Hence Husserl affirms, "... daß wenn die unbekannte angeblich mögliche Ursache überhaupt ist, sie prinzipiell wahrnehmbar sein müßte, wenn nicht für mich so für andere besser und weiter schauende Iche. . . . Ein mögliches Ich gehört also zur Möglichkeit der Wahrheit, bzw. eines wahrhaft Seienden, hier wie bei irgendwelchem wahrhaft Seienden sonst" ["... if the unknown but allegedly possible cause exists at all, then it must be perceivable in principle, if not by me, then by other subjects who see better and farther. . . . Thus here as in the case of any other truly existing being, a possible I is bound up with the possibility of truth, i.e., of a truly existing cause"] (*Ideen I*, 123 [§52]).

²¹ Thus Ptolemaic epicycles and Copernicus' whole model were frequently charged with being mathematical hypotheses more or less correctly predicting the observed positions of the heavenly bodies ("saving the phenomena"), but nonetheless not at all true representations of reality. See also the paragraph of the *Principles* where Descartes asserts the equivalence of Copernicus' and Brahe's theories from the point of view of predictive/explanatory value (*Principia*, 85 [Pt. III, art. 17]).

nature accurately depict this structure? His answer is that in most cases we cannot, because the hypothesized causes could be false, and yet nonetheless successfully explain and account for the phenomena. However, he continues in article 204, even Aristotle did not achieve or even attempt more than a successful explanation of the phenomena, and such explanations, even if false, are in any case sufficient for all practical purposes. Now Descartes does maintain that there are *some* principles in relation to which we can attain *absolute* certainty (which entails certainty regarding their ontological truth), and probably he would even class his specification of the primary qualities among these.²² But here he has to fall back upon the highly questionable *veracitas dei*: we are certain that these principles are not just pragmatically valuable but also accurate depictions of physical reality because we perceive them clearly and distinctly, and God would not deceive us in cases of clear and distinct perception (article 206).²³

Similarly, when Locke argues that our simple ideas really conform to things, he does not attempt to ground this in the explanatory-predictive power of theories based on these simple ideas, but rather in the argument that these ideas must be the direct product of nature, because the "wisdom and will of our Maker ordained and adapted" our minds to receive these without distortion; that is, again, the *veracitas dei*.²⁴

I take it that for Galileo, Descartes, and Locke, the claim that it is possible to imagine or perceive physical objects with primary qualities only is essential to their realism. While this possibility may not stand as a *sufficient* condition for realism, it certainly is a *necessary* condition. For they (like Husserl) adhere to the notion of reality according to which if something is real, it must be a pos-

²² See *Principia*, 38 (Pt. I, art. 75), where Descartes seems to class the distinction between primary and secondary qualities among the eternal truths of which we can assure ourselves by clear and distinct perception, so long as our minds are not clouded by prejudice.

²³ *Principia*, 325–9 (Pt. IV, art. 203–6). Similarly, in Part III, article 43, Descartes argues that if we are to be able to claim that the hypothesized causes of planetary motion are ontologically true, it must be possible to deduce *all* phenomena from them, including local motions on earth. But the reason he adduces for this is again God's justice: it is impossible that causes from which one can deduce all phenomena could be false, because God would not be so perverse (*ibid.*, 99).

²⁴ *Essay*, 563–4 (Book Four, ch. 4, art. 4).

sible object of perception (if not for us, then at least for a being with more highly developed powers), and this is what distinguishes a reality from a mere construction of the mind, at least in the case of *physical* reality.²⁵ Now if, as Husserl maintains, it is not possible for us to imagine a purely primary-quality world of bodies, and if this demonstrates that it is not possible for any being whatsoever to perceive such a world, then it seems that there is no longer the requisite precondition for the claim that the mathematical-physical world of science is real.

II

Does this mean that phenomenology necessarily leads to instrumentalism? That is, that a phenomenological elucidation of the real implies that it is only the lifeworld itself that is "really real," whereas scientific theories are no more than instruments for controlling and predicting lifeworld realities?

This is a position which could be tempting to Husserl interpreters. Indeed, although Husserl does not explicitly address the realism/instrumentalism debate as such, his own rhetoric in the *Crisis* strongly suggests an instrumentalist position. For example, he speaks repeatedly of modern science as a *technē*, and says that the world of mathematical physics is an idealized logical construction, a well-fitting garb of ideas clothing the lifeworld, "the only real world, the only one that really can be given through perception."²⁶ Further, "this garb of ideas brings it about that we take for true being what is a method."²⁷ According to these passages, the scientific method finds its origin in the everyday lifeworld need for *Voraussicht*, foresight into the future, a need for which the lifeworld already possesses its own everyday means of satisfaction. Thus it could be thought that according to Husserl, all the scientific method really accomplishes is to satisfy the practical need for prediction in an extremely sophisticated way, perfectible *in infinitum*.

However, in what follows I will argue that the consistent development of Husserl's analysis does *not* lead to instrumentalism,

²⁵ For Descartes, reality presupposes the possibility of *intellectual* perception, which, as argued above, presupposes the possibility of imagination, at least for physical realities.

²⁶ *Krisis*, 48-9 (§9 h).

²⁷ *Ibid.*, 52 (§9 h).

but rather to a modified version of scientific realism. In doing so, I will begin by elucidating the Husserlian sense of the priority of the lifeworld to the world of science. Secondly, I will discuss why despite this priority of the lifeworld, phenomenology provides a justification of the reality of the world of science as well. Finally, I will make some comments on the motives for the failure of the seventeenth-century realists to adopt this sort of conception.

A. *The Priority of the Lifeworld*

Husserl maintains repeatedly in the *Crisis* that the lifeworld is prior to the world of science.²⁸ This priority could be taken to mean that for Husserl, the lifeworld is *more* real than the scientific world, or that it is the “really real.” But is this the correct sense of priority? I would argue that it is not. Rather, the claim is that the lifeworld is prior in the order of (the particularly Husserlian category of) *Seinsgeltung* [existential validity or existential status]. *Seinsgeltung* is a phenomenological category, a descriptive characteristic of certain entities or states of affairs appearing in intentional life. An entity or state of affairs possesses *Seinsgeltung* when it presents itself as real, as opposed to possible, fictitious, false, or questionable (thus reality is one of many possible modalizations of a phenomenal being). The claim that the lifeworld is prior to the world of science then amounts to the claim that in order for the world of science to present itself in intentional life with the modality “real,” the same must be the case for the lifeworld. Another way to put this is that the only “path” of access to the world of science is *through* the lifeworld. If there were no experience of the lifeworld (as real), there could be no experience of the world of science (as real).

To understand the justification for this position, it is first necessary to say something about the sense here of the term “real.”

²⁸ Although Husserl's notion of the priority of the lifeworld to the sciences is generally associated with the *Crisis*, it in fact precedes the *Crisis* by far. Arguments for the priority of the lifeworld can be found in *Ideas II*, the lectures on phenomenological psychology, *Experience and Judgment*, as well as the *Crisis* itself. See, for example, *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie, Zweites Buch*, ed. Marly Biemel, Husserliana, vol. 4 (The Hague: Martinus Nijhoff Publishers, 1952), 281ff; *Phänomenologische Psychologie*, ed. Walter Biemel, Husserliana, vol. 9 (The Hague: Martinus Nijhoff Publishers, 1962), 55ff; *Krisis*, 48ff, 126ff, 229 (§§9 h, 36, 55).

Husserl's elucidation of this notion is closely associated with his analysis of intention and fulfillment (set forth, for example, in the *Logical Investigations*, *Formal and Transcendental Logic*, *Cartesian Meditations*, and other works).²⁹ According to this analysis, some intentions (thoughts, judgments) present an object only signitively, that is, in purely abstract thought, without any intuitive perception or image. By contrast, other intentional acts *fulfill* these empty intentions, presenting in concrete intuition what previously was entertained in only an empty way. Similarly, even perceptions generally contain some empty elements, elements which are intended but not actually given in this specific perception. For example, in the perception of an ordinary physical thing, the front part is given in a "full" way, whereas the back is intended, but not fulfilled. However, if the thing is real, the empty intentions *could be* fulfilled by some further perceptions (for example, going around the back). Thus in general, an object is real if the intention which specifies it could be fulfilled in a maximal way. What counts as fulfillment, maximal fulfillment, or annulment, will vary depending upon the type of object involved, but further specifications of this can be derived from an investigation of the intention itself by employing operations of free fantasy to imagine courses of experience which would be compatible with the original intentional positing (such as "This is a chair"), and ones which would not.³⁰ Thus when an object has *Seinsgeltung* for us, we are implicitly convinced that certain further

²⁹ See, for example, *Logische Untersuchungen, Zweites Buch, Zweiter Teil. Untersuchungen zur Phänomenologie und Theorie der Erkenntnis*, ed. Ursula Panzer, Husserliana, vol. 19/2 (The Hague: Martinus Nijhoff Publishers, 1984), 566ff (A504/B32ff); *Cartesianische Meditationen und Pariser Vorträge*, ed. Stephan Strasser, Husserliana, vol. 1 (The Hague: Martinus Nijhoff Publishers, 1950), 91-6 (§§24-8). This is a topic which I have treated in detail in my dissertation, "Husserl and the Question of Relativism," chs. 3 and 4.

³⁰ In general, these specifications will be neither exhaustive nor absolutely precise, but rather will outline overall styles and general types. Thus the method of free variation should not be thought of as a way to obtain complete truth criteria, which in turn might be used to obtain absolute certainty as to whether the object is real. (For a related interpretation of the function of *Evidenz* according to Husserl's analysis, see Elisabeth Ströker, "Husserl's Evidenzprinzip.")

fulfillments or verifying courses of experience are possible, whereas other nullifying courses of experience are not.

The justification for the claim that the *Seinsgeltung* of the lifeworld is a condition for the possibility of the *Seinsgeltung* of the world of science arises, then, from the following: (1) in order for a phenomenon to achieve *Seinsgeltung*, the modality of "real," some form of fulfillment must be possible; and (2) any perceptual fulfillment of judgments concerning the world of science presupposes perceptions at the level of the lifeworld. Thus (3) the *Seinsgeltung* of the world of science presupposes that of the lifeworld.

It should be noted that if the world of science is to attain *Seinsgeltung*, the lifeworld objects and states of affairs which "fulfill" or verify scientific theories must not merely be experienced, but must be experienced *as real*, in the sense specified above: the further courses of perception predelineated in the initial intention must be (experienced as) capable of being carried out. Moreover, these states of affairs must be *intersubjective*: available for similar verification by any normal investigator, and possible objects of consensus for the intersubjective community. If lifeworld objects were really experienced as mere illusions or hallucinations (as private, not reproducible, or incapable of fulfilling the complete correlated manifold of possible perceptions), then the world of science itself would also have to be experienced as illusory.

Thus here it is clear that the analogy established by Descartes between vision of secondary qualities and jaundiced vision or vision through colored spectacles is highly misleading. For in the case of jaundice, there is no intersubjective agreement as to the yellow color of objects; and when one gets well again, the color changes; so the "reality" conditions are not fulfilled. Similarly for vision colored by glasses: others do not see these colors, and when the glasses are removed, the color changes. However, "real" lifeworld objects and states of affairs *are* intersubjective and capable of harmonious fulfillment, and this is essential if the world of science is to attain existential status.

Thus I take it that one of Husserl's main points in the *Crisis* is that the reality of the lifeworld is not and could not possibly be "cancelled" by any scientific theories, no matter how well verified or firmly believed. Of course it is possible to form philosophical theories, in the style of Galileo, Descartes, and Locke, in which it is held that secondary qualities are not "really real." However, this

does not and could not change the modal quality of actual experience, in which ordinary objects and qualities continue to present themselves as real, and this not only for the scientifically naive, but for the scientists themselves. The philosophical position is itself an absurd one, because if it could really be incorporated into experience, then there would be no science or world of science at all.

However, against this elucidation of the priority of the lifeworld, it could be objected that what has actually been shown is that the lifeworld is prior in the order of *knowledge*, but not in the order of *being*. That is, what Husserl in fact demonstrates is that in order to know anything about, say, quarks and electromagnetic waves, we must have some experience of ordinary objects of perception, with their colors, sounds, and textures. But very few realists would even be tempted to dispute this. This is because this epistemic priority of the lifeworld does nothing to undermine the *ontological* priority of the world of science, its priority in the order of being or causation, and *this* is what the realists wish to defend.

In response to this objection, I think the first thing to be said is that Husserl would probably reject the epistemic/ontological priority distinction, at least as usually understood, on the grounds that it is epistemically naive and conceals a precritical realist metaphysics. As argued above, the priority claimed by Husserl for the lifeworld is neither epistemic nor ontological, but priority in *Seinsgeltung*. This is not merely epistemic, at least not in the usual sense. This is because, firstly, Husserl argues that the lifeworld is epistemically prior *in principle*, not merely for us, but for any being whatsoever. Further, in the critical tradition of Kant, Husserl would maintain that it is senseless to speak of anything as a reality if it is not at least a possible object of experience (or in Husserl's language: fulfillment, construed in the broadest sense). Objects which are not even possible objects of experience may "exist" in some extended sense, but, as argued by Kant, they are nothing for us. However, from this basic critical precept it follows that an in-principle *epistemic* priority is also an ontological one. For according to the critical precept, the possibility of experience is a condition for "reality," existential status, in the critical sense. Thus if experiences of one type of object are in-principle conditions for experiences of another type of object, then the former are also conditions for the "reality" of these latter objects.

B. *The Reality of the World of Science*

Having argued in favor of the priority of the lifeworld in the order of *Seinsgeltung*, I would now like to maintain that this priority does not entail an instrumentalist position, and, even more strongly, that the general elucidation of reality provided by Husserl's phenomenology makes possible a justification of the superior reality of the world of science, in a specific sense. I am not claiming that this is actually the position advanced by Husserl in the *Crisis*, where, as noted above, he makes a number of very instrumentalist-sounding statements. Rather, I think this is the position he should have adopted, and the one which results from his overall analysis (as presented in the *Logical Investigations*, *Ideas I*, *Ideas II*, *Formal and Transcendental Logic*, and *Cartesian Meditations*).³¹

In Husserl's general analysis, reality is correlated with (the possibility of maximal) intentional fulfillment. Thus in order to claim that the entities and states of affairs posited by natural science are not real, it would have to be the case either that there is *no* possibility of fulfillment of the intentions of them or that the fulfillment conditions implicit in these intentions cannot be maximally satisfied. However, as noted above, what constitutes fulfillment varies from one category of intentional object to another. Now Husserl never suggests that there is *no* fulfillment of the entities and states of affairs described by mathematical physics, but only that the corresponding fulfillment is less immediate than in the case of objects of ordinary perception: that is, it must take place via

³¹ In part because of the roughness and polemical nature of the text, the question of whether Husserl actually had come to an instrumentalist view by the time of the *Crisis* is difficult to answer. My tendency is to think that he had not, and that what he means here when he accuses science of being a mere *technē* is not that modern science is essentially instrumentalist, but rather that science as currently practiced has degenerated into a mere technology. This is because scientists have lost sight of the origin and meaning of the intentional formations with which they work, i.e., of their ground in intuition and experience at the level of the lifeworld. Thus the contemporary scientist works technologically in the same sense as a logician who carries out proofs according to logical rules, without any insight into the source and ground in intuition of these rules. However, if this understanding of the origin and ground of science were restored, then science itself would no longer be merely technological, but also ontological.

perceptions of the everyday world. Husserl's general term for such fulfillments (fulfillments which take place on the basis of other perceptions, and presuppose them) is "founded perception." Many other types of perception are founded, according to Husserl. For example, he holds that intuition of mathematical objects is founded on intuition of sensible ones, roughly in the same way as described by Plato in the Simile of the Line. Further, he maintains that we have intuition of universals, but here again only as founded intuition, founded upon perception of sensible particulars, taken as general instantiations of the universal. Finally, categorially-formed judgments (such as predicative judgments or judgments containing logical connectives) are also fulfilled by founded perceptions.³² Clearly, Husserl does not take foundedness to be a ground for denying the reality of what is presented by a perception. If this were the case, then he would have to deny not only the reality of universals, but even of all states of affairs (the correlate of predicative judgments). To the contrary, Husserl argues virulently against the empiricists that universals are indeed real, and that the empiricists are led to deny this because they have too narrow a conception of reality and perception, a conception not derived from the character of experience itself.³³ Thus the foundedness of the fulfillments of scientific entities and states of affairs cannot be taken to undermine their reality.

Now an instrumentalist might object that the fact that scientific theories can successfully predict perceptions at the level of the life-world hardly proves that these theories provide an accurate description of reality. To the contrary, this state of affairs is completely in accord with the instrumentalist thesis, that is, that scientific theories are merely instruments for the prediction and control of observable events, not descriptions of reality. Rather, the possibility of observational verification shows only the *pragmatic* value of scientific theories, and not their *ontological* import.

However, against this objection, it must be noted that the dualism the instrumentalist establishes between pragmatics and ontology is itself grounded upon a precritical conception of the real. That is, according to the critical/phenomenological conception of the real put forward here, to be real is the correlate of possible perceptual

³² See Investigation VI, §48.

³³ See Investigation II, and also *Ideen I*, 42-4 (§19).

fulfillments (or what an instrumentalist might conceive as possible processes of verification): something *pragmatic*. To hold that there is a sense of reality which can be divorced from "pragmatic" correlations such as these is to espouse an epistemically naive concept of the real.

The instrumentalist might further object that scientific theories are merely constructions, mere creations of the subject (or community of subjects), whereas the phenomenal world or aspects of it are something really *given*, not merely constructed, and in this sense ontologically prior. Here the instrumentalist might even call upon Husserl and the sort of *Crisis* passage cited earlier, holding that for Husserl's phenomenology too, the scientific world is not "really real" because of its constructed quality, its dependence upon intentional operations of subjects.

However, despite Husserl's charges throughout the *Crisis* that the world as described by mathematical physics is merely a construction, I do not think this can be taken as evidence of its "ir-reality" or fictitiousness where a critical-phenomenological conception of reality is employed. For here again the instrumentalist makes use of an epistemically naive dualism between what involves the participation of the subject on the one hand (the "construction" of the world of science), and what allegedly stands on its own with no contribution from the subject (the "pure on-looking" of the given in the form of the phenomenal world, or aspects of it). However, one of the central points of Husserl's entire analysis is that *all* perceptions of objects involve the "participation" of the subject; that is, all objects are given through intentional meaning-acts, and these are always subjective achievements (*Leistungen*). This is the case as much for intentional acts relating to the lifeworld as to the world of science. Thus Husserl writes in the *Crisis*:

. . . der Seinssinn der vorgegebenen Lebenswelt ist subjektives Gebilde, ist Leistung des erfahrenden, des vorwissenschaftlichen Lebens. . . . Was die "objektiv wahre" Welt anlangt, die der Wissenschaft, so ist sie Gebilde höherer Stufe, aufgrund der vorwissenschaftlichen Erfahrens und Denkens bzw. seiner Geltungsleistungen.³⁴

³⁴ *Krisis*, 70 (§14): ". . . the being-sense of the pre-given lifeworld is a subjective formation, an achievement of experiencing, pre-scientific life. . . . As for the 'objectively true' world, the world of science, it is a formation of a higher order, built on the ground of pre-scientific experiencing and thinking; that is, on its validity achievements."

Thus for Husserl, the crucial difference between the lifeworld and the world as described by science is not that the one is a subjective construction, whereas the other is somehow accessible without any subjective participation. Rather, *both* are subjective formations (*Gebilde*), or more precisely, the being-sense (*Seinssinn*) of both is so. The crucial difference, as argued above, is that the *Seinssinn* of the scientific world is a subjective formation of a higher order, presupposing that of the lifeworld. Thus, *contra* this instrumentalist objection, the distinction between the "really real" and the "merely apparent" is not to be drawn in terms of the distinction between "subjective construction" and some mythical pure given, given without any contribution on the part of the subject. Everything which is or can be given requires the intentional activity of the subject. What makes an object "real" as opposed to "merely apparent" is not the lack of subjective constitution, but rather the harmony and consistency which the constituted object exhibits (and could exhibit) within the overall context of intentional life.

Now one might be tempted to ask whether this talk of the subjective constitution of all objects does not in turn imply that Husserl is an idealist of the most extreme sort, in the end holding that only the subject is the "really real" in the genuine, "metaphysical" sense, and that everything else is simply an either coherent or incoherent creation of the subject. However, on my view it is not Husserl's position that the subject's intentional acts *create* the objects, but that these acts produce the object's being-sense (*Seinssinn*) and existential validity (*Seinsgeltung*). That is, the subject carries out meaning-acts in which objects are thought, perceived, judged about, given, and so forth. In some of these series of meaning-acts, sufficient internal coherence is exhibited for the object to "be" (count as) real, in others not, in others questionable. Now if it is further asked: is it that the subject merely constitutes the sense of the object, and there is also the object itself, existing over, above, apart from and *corresponding* to these meaning-acts and their contents (and other possible contents of intentional acts); or rather, is it that the object *just is* the content of these series of actual and possible acts? Although not explicitly stated, I think Husserl's answer here would have to be that there is no way to know the answer to this question, that the answer makes no difference to any possible course of experience, and that even to ask it presupposes the naive, precritical conception of reality his phenomenology opposes.

Therefore, despite the priority of the lifeworld, it follows from Husserl's own general elucidation of reality that the world of science is also real. Further, this analysis provides a justification of the claim that the scientific world is the "true" world in a sense in which the lifeworld is not. The superiority of the scientific world consists in its greater *intersubjectivity*.³⁵ As I have argued in detail elsewhere,³⁶ a reference to a limited, nonuniversal (although perhaps only vaguely defined) intersubjective community can itself come to belong to the constitutional sense of an object or context of objects as the community able to comprehend and verify judgments about these, and to come to a mutual understanding and consensus (*Wechselverständigung*) concerning their truth or falsehood. Many features of concrete lifeworlds come to possess such limiting references to particular intersubjective communities. For example, based on outward behavior or linguistic communications, we find that colors are not experienced in the same way by all subjects, and these differences can be correlated with differences in physiological make-up. This does not mean that colors are henceforth experienced as mere illusions, but rather that what it means to be real for something such as a color is qualified by a reference to a limited intersubjective group of potential observers and communicants, like beings with person-like visual apparatus in a "normal" functioning condition. In this sense color, as many other phenomenal qualities, is ontologically *relativized*, experienced as "there for the we."

By contrast, unlike the concrete lifeworld, it belongs to the sense of the world as construed by physical science that this world must be of *universal* intersubjectivity. That is, the mathematical-physical world is the world as it would be constructed by any rational being who could enter with us into a *Wechselverständigung*. This world as constructed would be the same despite differences in our sense experience, and could in turn predict and explain all the manifold lifeworlds, the worlds of ordinary perceptual experience of beings of various sorts. The mathematical "primary" qualities attributed to this world would then be properties of the "true" world

³⁵ This is not the only superiority. The world as conceived by modern science is also far more exact than the lifeworld, and its causal order more rigorously law-like.

³⁶ See my dissertation, "Husserl and the Question of Relativism," esp. ch. 6, sec. 3.

in the sense that they are "real" for all subjects whatsoever, and not merely for a limited intersubjective community, such as subjects with a specific physiological make-up.³⁷ (Of course, "real" here means *constructible* and *verifiable* on the basis of any arbitrarily constituted sensible lifeworld: this analysis in no way contradicts the previous claim that it is impossible for any being to perceive the mathematical-physical world directly.)

According to the early modern conception, the objectivity of the physical world of primary qualities consists in its existing apart from the subject and causally interacting with it to bring about the merely subject-relative experiences of secondary qualities. According to the account presented here, this objectivity consists in the universal character of the reference to an intersubjective community contained in the being-sense of the world constructed by science. This is not to claim that the physical theories we currently possess actually satisfy the required universal intersubjectivity. Rather, all that has been attempted here is an explication of the *sense* of the "real" in the case of mathematical-physical nature. Thus the claim is only that physical theories aim to satisfy this requirement, and must satisfy it, if they are to count as true.³⁸

The whole tendency of Husserl's phenomenology is to oppose reductionism, the attempt to produce a minimal ontology despite the manifold nature of reality contained in experience itself. The sort of reductionism characteristic of early modern scientific realism functions only by applying to reality as a whole the requirements which in fact originate from and can be applied to only a very limited ontological region. Thus while it is consistent to require a strongly universal intersubjectivity of logical, mathematical, and mathematical-physical principles, the imposition of this requirement on "reality" as a whole, with its consequence that the phenomenal world is deemed not "really real," is contrary to the sense of reality contained within experience and undermines the ground of scientific realism itself. Thus as Husserl maintains in *Formal and Transcendental Logic*, the sense of reality cannot be imposed upon ex-

³⁷ For one of Husserl's clearest statements of this position, see *Ideen II*, 78 (§18e).

³⁸ If, for example, we were to encounter beings with super-microscopic or -telescopic vision, or sensation of radiation, and were able to communicate with them and understand their phenomenal experiences, then our scientific theories would have to be compatible with these experiences.

perience "from above" by a totalizing philosophical theory, but only derived by explicating the sense already contained within intentional life itself.³⁹ When such an explication is carried out, it is found that some categories of entity are prior in the order of *Seinsgeltung*, others have greater intersubjectivity or exactness. But the question over and above these various differences as to which is the "really real" has no sense and is itself based upon a misconception.

Why did the early modern realists fall into this misconception? Why were they, or why is anyone, tempted to ask the question of the "really real," and to assert that one region of being is real, whereas the other is not? One possible answer is that it might be thought that the ontologies of science and the lifeworld are mutually incompatible. For both the sciences and everyday life present claims about the same objects, and these claims often conflict. For example, in everyday experience my lamp is perceived to be a solid, impenetrable object, whereas modern science teaches that the lamp is in fact largely empty space. Thus it is not possible to hold that the lamp is described equally correctly by both everyday and scientific judgments. Because the two judgments conflict, we must hold that the lamp is either really as perceived in ordinary experience, or really as described by science.

However, the guiding presupposition of this argument—that lifeworld truth and scientific truth could conflict—cannot be granted. This is already clear from the fact that the lifeworld continues to be "there" for us to have *Seinsgeltung* even when we take up theoretical activity as scientists, rather than being cancelled or "broken up" [*zerschellt*] by the affirmation of scientific judgments. For example, at the level of the lifeworld, the lamp is solid, and its everyday solidity does not vanish when I become acquainted with or even come to believe the theories and discoveries of science (as would occur if, for example, I discovered that what seemed to be a lamp is in fact an illusion produced by hidden mirrors or lights). For the sense contained in the intentional horizon of my judgment, "this lamp is solid" is that, for example, if I touch the lamp, I feel resistance; if I drop it on a glass table, the table will break; no matter what angle I choose, I cannot see through the lamp, and the same holds good for other normal persons. By contrast, when science

³⁹ *Formale und transzendente Logik*, ed. Paul Janssen, Husserliana, vol. 17 (The Hague: Martinus Nijhoff Publishers, 1974), 285 (§105).

teaches "this lamp is not solid," what is meant here is that, for example, if a beam of particles is shot through the lamp, most of them will pass undeflected. But even if this latter judgment is granted, it in no way contradicts the judgment made at the level of the lifeworld, when this is understood with the meaning implicit in its horizon. Thus both assertions, "the lamp is solid (in the everyday sense)" and "the lamp is not solid (in the scientific sense)" are true, each understood in terms of its horizon.

A second possibility is that the temptation to ask the question of the "really real" goes back, at least for thinkers such as Galileo, Descartes, and Locke, to the belief that God (unlike we mortals) views the world as it really is, and this world must be *one*, having one aspect. That is, God cannot view the world both as the sensible-phenomenal world experienced by us, and as the mathematical-physical world described by science, but only as one of these, and it is this world that is the real one. But if this is the motivating conception, then the problem of the "really real" arises from the incorrect position that an ideal cognitive being could view the mathematical-physical world without the mediation of a phenomenal-sensible one. Once it is realized that even an ideal subject could attain access to the scientific world only via a lifeworld, then we see that no matter what one's theological commitments, there is no conflict or contradiction in the assertion that *both* the lifeworld and the world of science are irreducibly real, although in different ways.⁴⁰

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⁴⁰ I would like to thank Richard Bernstein and David Carr for their helpful comments on an earlier version of this paper.

CIRCULARITY OF THOUGHT IN HEGEL'S LOGIC

ODED BALABAN

I

HEGEL says that "when enquiry is made as to the kind of predicate belonging to [a] subject, the act of judgement necessarily implies an underlying concept [*Begriff*]; but this concept is expressed only by the predicate."¹ According to this, some concept of the subject must precede predication. This circularity can be formulated as follows: If the statement (*Urteil*) is the "factory" in which concepts are produced, how is it that the concepts precede the statement and are not merely produced within it in their function as subjects? And, on the other hand, if the subject is not, prior to predication, a concept—if it has by itself no meaning—how can a predicate be matched to it? There would, in fact, be nothing to match. We are caught in a circular thesis that requires for its elucidation a fresh analysis of the relationship between concept and statement.

According to Hegel, concepts are statements and statements are syllogisms. Indeed, concepts are produced within statements when the former function as subjects. It is in this sense that every concept is a statement. And since the predicate of the predicate is also a predicate of the original subject (in other words, predicate₂ in the formula below is also the predicate of subject₁), every statement is also a syllogism; every concept that functions as predicate has already received its meaning (content) from its own predicate (predicate₂ in formula below) when it functioned as subject, and therefore predicate₂ refers also directly to subject₁ in the following way:²

¹ G. W. F. Hegel, *Wissenschaft der Logik* II, in *Werke in zwanzig Bänden*, Bd. 6 (Frankfurt am Main: Suhrkamp 1969), p. 303.

² The whole discussion of the concept is inspired by the *Wissenschaft der Logik*, 272–401.

$$\frac{\text{subject}_1\text{-predicate}_1}{\text{subject (predicate}_1\text{)-predicate}_2}$$

$$\text{subject}_1\text{-predicate}_2$$

This means that there is no basic difference between concepts, statements, and syllogisms. The only difference between them is the degree of explicitness concerning what is already included in the concept: the statement makes explicit what is implicit in the concept, and the syllogism makes explicit what is implicit in the statement. The difference between concept, statement, and syllogism is the difference between production and the product: it is a difference not of content but of form. The concept is the final product of the statement, and the statement is the final product of the syllogism. Statement and syllogism are basic components of the process of the production of concepts. For example, when we want to recall an already existent but forgotten concept, we must reproduce the process by which it was originally produced, not necessarily completely but at least in its central features. In order to do so, we make the term that represents the concept function as subject in different statements, coupling it with its most generic predicates. The same process is, generally speaking, also valid for producing new concepts and not merely remembering concepts already produced. This means that you can only produce or reproduce a concept by making it function as subject. You cannot do so by making it function as predicate. As predicates, concepts are instruments of production that are themselves also products of a previous production.

From this short account we may conclude that statements (or concepts) occur in the same form each time a new content is produced or reproduced in the mind—a form that may be called the subject-predicate relationship. This is the basic unit of thought. According to Hegel this relationship is universal, that is to say, it is present, implicitly or explicitly, in every thought:³ in the isolated concept the relationship is implicit; in the statement (and in the syllogism) it becomes explicit.

The statement is a synthesis of a subject and a predicate. How are these two elements—subject and predicate—distinguished?

³ "The statement is the determination of the Concept posited in the Concept itself"; *Wissenschaft der Logik* II, 301. Cf. *Enzyklopädie der philosophischen Wissenschaften* (Berlin: Akademie Verlag, 1959), §166.

Every statement is an answer to a question. The *subject*, which may be a single word or a group of words, is that about which the question is asked. It is therefore, by definition, unknown; but not necessarily completely unknown. It is only necessary that some aspect of it be unknown, and it is this unknown aspect about which the question is asked, and to which the answer is given in the predicate (see below). When, for example, I ask who is John Kennedy, I, personally, do not expect for an answer that he was President of the United States, since I knew this before I asked the question. I am asking in order to know something more about John Kennedy besides the fact or facts already known to me. For instance, I expect to be informed that he was a political enemy of Mr. Ngo Dinh Nhu, the elder brother of Ngo Dinh Diem, the former President of South Vietnam. In this case, though the concept "John Kennedy" is not completely unknown, some aspect of it is and, as such, it qualifies for the subject function.

The predicate, on the other hand, is that which answers the question about the subject. It also can be a word or group of words that, as a "known," functions as *explanans* of the subject. This does not imply that it is completely known. It is only necessary that some aspect of the word or word group be known, and that this known aspect be reflected in the predicate. For example, when I am told that Kennedy was friendly with Diem, it is possible that I do not know the date of Diem's birth or other biographical data concerning the man; however, it is sufficient, in order to answer my specific question, that I know that he was President of Vietnam in Kennedy's time as well as any other facts that may be relevant in this particular context.

From this distinction between unknown-subject and known-predicate, we deduce another aspect of the basic form of thought: the subject-predicate relationship is also an individual-universal relationship, and the unknown subject is, by definition, subordinate to the known-predicate; and this is so whether the predicate expresses a quality or a genus.⁴ In the statement "the rose is red," the rose functions as the individual (or the particular) that is subordinate to the universal "red." The statement is accordingly not reversible: you cannot assert that "the red is the rose." In the same way, in the statement "red is a color," the subject (red) functions

⁴ Cf. Hegel *Wissenschaft der Logik* II, 311-35. *Enzyklopädie*, §172-76.

as individual (or particular) relative to the universal (color), and the statement is similarly not reversible.

The subject-predicate relationship is dynamic. It is a process that starts with the individual-subject which is elucidated by moving over the universal-predicate. Once it reaches the predicate, the conceptual process returns to the subject and fills it with content, which may add to or even change its former meaning, if any. According to Hegel, then, the statement is the factory of concepts.⁵ The term that functions as subject accumulates more and more content from the various predicates to which it relates as subject. The content of the concepts comes, then, from predication.⁶ Thus concept and predication are two aspects of a single process. The concept accumulates content from the predicative motion; it is a synthesis of multiple predications.

The concept that functions as predicate must have functioned in former statements as subject; its content is the accumulation of the various contents acquired in its function as subject. Indeed, only those concepts can function as predicates that have previously functioned as subjects. And from where do these subjects acquire their content? From their respective predicates, and so on. We are thus moving in a circle: *the content of the subject is always a result of predication, yet the content of the predicate is itself a result of a previous predication*. That is, content is the result of predication as well as a precondition of predication.

Similarly, from the point of view of the universal-individual relationship, *the universal (predicate) produces the individual (subject), yet is itself a product of some other universal*. This circularity is Hegel's main problem in his analysis of thought.

II

When instead of thinking about the content of the statement we think reflectively about the statement without reference to con-

⁵ The statement is not only the "factory" of concepts, but also the factory of reality itself. Hegel "ontologizes" the forms of knowledge so that these forms are constitutive parts of reality. He says that every thing is a statement; cf. *Enzyklopädie*, §167.

⁶ In fact, concepts do not have contents but are contents.

tent, that is to say, when we consider the statement as such as the content of thought, we observe the process of thought through its basic unit, the statement. But from this fragmentary point of view—the isolated statement—we fail to see the dynamics of the production of content, which is what we are precisely interested in. The question therefore arises as to how content or concepts come into statements.

This question arises because concepts tend to be identified with words. Indeed, the process by which concepts are produced is obscured by the stability of words relative to the content of thought. The question arises, that is, when our point of view is that of the word. Aristotle's logic suffered from this approach. A look at the shortcomings of Aristotle's logic will, I believe, enable us to analyze Hegel's circularity more successfully.

According to Aristotle, isolated words (verbs or nouns), abstracted from their "natural" environment—the statement—are devoid of content. That is to say, words are neither true nor false.⁷ Statements, on the other hand, are either true or false. They have content or, rather, they are contents.⁸ That is to say, words, in order to be true or false, must be placed in their "natural" environment—within statements.

But Aristotle analyzes words in a somehow artificial way. He takes words out of their "natural" context, he isolates them. Aristotle does not look for the content of the word; that is, he does not inquire about the conceptual context from which the word in question receives its content, but about the word itself in isolation. And indeed, how can you ask about the content once you isolate the word from its content, that is, its context? Aristotle disregards the fact that in isolation words are not even words, that is, they carry no meaning and are merely a set of sounds. The word in isolation is purified of its predicates. It is thus neither true nor false; it is an empty fiction of the mind. The isolated word is nothing but the product of an abstractive philosophical reflection that, instead of giving an account of the word and explaining it in context, transforms it into a mysterious abstraction.

It is at this point that Aristotle's troubles begin. Aristotle realizes the need to admit that words must have content of some

⁷ Cf. Aristotle, *De Interpretatione* 16a15–19.

⁸ Ibid., 17a1–35; *Prior Analytics*, 24a16ff.

kind. For if words had absolutely no content, how would the mere connection of words in a statement bestow content? But Aristotle also asserts that the word is not an affirmation or a negation, that it is not an argument or a statement; and then its assumed content (which, in the absence of a content, is not truly existent) is neither true nor false. This contradiction between a content that is necessarily assumed to be present but is nevertheless absent is resolved by Aristotle by asserting that it is a "conventional" content (that is, neither true nor false). It is only in the statement that the concept may be true or false.

Hegel does not agree with Aristotle about the difference between concept and statement. According to Hegel the word in itself can already be true or false. Even in isolation, the word is always considered to have an implied context and, as such, it functions as a concept. Nevertheless, Hegel does not confuse words with concepts. In his *Philosophy of Mind* (§462) he asserts that a word is an articulated sound, an "internalized externality"; that is, it is not merely a string of sounds lacking content. There must be some inner correlation between the external word and its internal content (or word and concept). The word always contains a concept, a content. In the *Encyclopaedia* he states this explicitly. Isolated words are true concepts even if for lack of a context they seem not to be so. A context, as stated above, will be assumed. In other words, the abstract, uncontextualized word or concept, will be rendered concrete (in Hegel's terms "determined") by implying a context. The concept is an accumulation of different predications, or, in Hegel's terms, "a unity of different determinations."⁹ Hegel is therefore opposed to the abstractive reflection that creates the fiction of an isolated concept which is merely "empty" and therefore treated as a word in quotes.

III

I have tried to offer a brief account of the framework in which the circularity in Hegel's *Science of Logic* appears. I shall now attempt a detailed analysis of Hegel's formulation of this circularity

⁹ *Enzyklopädie*, §33.

and the problematic solution he offers. (Let me recall that the question was: how is it possible to match a predicate to a subject if the subject, before predication, is quite devoid of content?) I quote below, *in extenso*, a statement of the problem in Hegel's own words:

. . . the subject is, first, only a kind of *name*; for *what it is* [*was es ist*] is stated, later, by the predicate, which contains the *being* in the sense of the concept. In the question: what *is* this? or: what kind of a plant *is* this? etc., the *being* about which the question is asked, is merely the *name*, and when this is learnt one is satisfied and now knows what the thing *is*. This is the being in the sense of the subject. But the concept, or at least the essence and the universal in general, is first given by the predicate, and it is this that is asked for, in the sense of the statement. Consequently, God, spirit, nature, or whatever, is, as the subject of a statement, at first, only the name; what such a subject *is*, as regards its concept is first enunciated by the predicate. When enquiry is made as to the kind of predicate that will match a subject, the act of statement-making necessarily implies an underlying concept; but this concept is expressed only by the predicate.¹⁰

According to Hegel, in every statement the content of the word functioning as subject comes to it from its predicate. This much is clear. The problem, however, is how to break the circular line of thought. There must be an original statement in which the content of the subject is not a product of predication, for if this is not so, if the subject is, previous to predication, totally empty, how can one find a predicate to match it? This question is legitimate in the framework of Hegel's philosophy since he himself seeks to break the circularity. Assuming then that this circular thought process has a starting point, we may rightly ask: what is the content of the first subject or of the first predication?

Hegel's question, therefore, is not: what is the subject? The answer to this question would be: the predicate. Hegel's question, it would appear, is rather about the *origin* of the subject in general, about the first predication, where the subject is not relatively unknown but *completely* unknown. And then, precisely because it is completely unknown, it is not knowable; that is, it cannot be an *explanandum*, it cannot be a subject, since we do not know what can be asked or said about it.

Hegel's answer to the circularity is:

¹⁰ *Wissenschaft der Logik* II, 303.

. . . therefore, it is the mere *representation* [*Vorstellung*] that constitutes the presupposed meaning of the subject and that leads to a nominal explanation, according to which what is, or is not, to be understood by a name is an arbitrary, historical fact. So that many disputes about whether a predicate does or does not match a certain subject are therefore no more than verbal disputes . . . what lies at the base [*subjectum*, *hypokeimenon*] is nothing more than the name.¹¹

Here, in my opinion, Hegel offers two contradictory answers that do not even relate to the question: 1) the content of the subject of the first predication is the representation (*Vorstellung*); and 2) the content of the subject of the first predication is a name. It is a name-giving statement.

1) The first answer can be interpreted in two ways:

1a) The representation (sense-image) is the content of the word that functions as subject; in this case the representation is a concept. This, however, contradicts what Hegel asserts about the concept, namely, that it is a product of predication. If this understanding of Hegel's answer is correct, then Hegel is here trying to maintain two contrary positions: if the concept is a product of predication, it cannot be a representation.

On the other hand, in every other *locus* Hegel adopts an intellectualist approach that reduces representation to concept. The subject as individual is, in the framework of Hegel's philosophy, an aspect of the universal itself (of the predicate) posited as its opposite, as subject to predicate. For instance, in *Encyclopaedia* §164 Hegel asserts that the concept (the universal) is itself concrete since it includes and forms a unity with its negative, the individual (the subject). The individual is therefore an aspect of the concept, and aspects of the concept cannot be isolated. Each aspect of the concept constitutes the concept as a whole.¹² "The individual has the meaning of a subject and substratum that includes in itself the genus and the species, and is in itself substantial."¹³ Moreover, individuality is "in itself the negative reflection of the concept."¹⁴ The concrete is for Hegel not the individual but precisely the universal—the kind of universal, though, from which the individual can be deduced. The empirical, on the other hand, that is, what is commonly

¹¹ Hegel, *Wissenschaft der Logik* II, 303–4.

¹² Cf. also *Enzyklopädie*, §160.

¹³ *Ibid.*, §164.

¹⁴ *Ibid.*, §165.

regarded as individual, is regarded by Hegel as abstract—abstracted, that is, by means of representation, from its real, concrete context. Nevertheless, in his attempt to resolve the circularity, Hegel contradicts assertions he has himself made throughout his writings, and tries to reduce concepts to representation.¹⁵ To say that the first concept is a representation does not therefore answer the question but, rather, refutes it. The problem, we wish to restate, is: If the content of the subject is supplied by the predicate, what is the content of the first predication? And Hegel's answer, that the content is not given by the predicate but by representation, is not adequate to the question and, as stated above, conflicts with his own explicit assertions.

1b) The representation is not the concept of the word but another thing, let us say, an instance of an already existing concept. But this answer, too, is not adequate to the question for it presupposes that the question has already been answered. Hegel, therefore, either refutes the question (in case 1a) or begs it (in case 1b).

2) In his second answer, Hegel asserts that the first predication, or statement, has merely a name-giving function. This answer can also be interpreted in two ways:

2a) The subject, before the first predication, was merely a set of sounds whose content comes from predication: it is only after predication that the subject becomes a word, that is, something more than just a set of sounds. Indeed a word is not just a set of sounds, since not every set of sounds is a word. The first statement is thus one by means of which a set of sounds becomes a word: predication converts a sound into a word.

Accordingly, Hegel says that the first statement is neither true nor false, but only a nominal definition, and the choice of the predicate to relate to the subject is an arbitrary one. This kind of analysis regards the concept through the medium of an abstraction that takes the subject out of its natural context, isolating it from the statement. It is only by means of such an abstraction that we can arrive at either a conventional or a nominal definition.

There is here an implied abstraction, namely, that the origin of the subject of the statement lies in the word. This constitutes a

¹⁵ Hegel explicitly and repeatedly asserts in his writings that we cannot name a thing or produce a concept by representing it. See, for instance, *Gesammelte Werke*, Bd. 8 (Hamburg: Felix Meiner Verlag, 1976), p. 189.

return, unacceptable in the framework of Hegel's philosophy, to the philosophy of Aristotle, since for Hegel the concept itself is already a relation between words within statements, whereas for Aristotle the word is the form and the statement is the content. For Hegel there cannot be something nonconceptual (a word or a representation) in the concept.

2b) Content does not come from predication. This assumes that content is external to linguistic form. Such is the case when we assert that content is some kind of sense-image and the word is a symbol or conventional sign referring to that image (or set of images). Language (symbols or signs) is therefore used merely for the sake of convenience.¹⁶

This interpretation does not accord with Hegel's philosophy. According to Hegel it is only the predicate that gives content to the subject; that is to say, content comes into being only with the predicative motion of words and has no existence outside this predicative motion. The word in isolation constitutes a mystery: where does it conceal the content? Indeed, isolated, the word is no more than a set of sounds, that is, it is not a word. A word is a word only by virtue of a system of relationships. The word and the representation are carriers of the concept (the content); they are not the concept itself.

The mystery of the isolated word comes from regarding the subject-word as independent of and uninfluenced by predicate-words. This apparent independence comes from the fact that the influence of the predicate does not appear in the word itself but only in the concept, which creates the illusion that the subject-concept has an existence independent of its predicates, the illusion that even without predicate-concepts words have content, a logical extension, or substratum, where predicates may find lodging. Concepts are regarded as being fixed like words, independent of and uninfluenced by the subject-predicate structure of the statement in which they occur. Thus, instead of grasping the words of the statement as a mere

¹⁶ This approach accords with Bertrand Russell's theory of denotation rather than with Hegel's own philosophy; see *Logic and Knowledge: 1901-1950* (London: Allen and Unwin, 1956), 195-196, 197-198, 230, 254. Gulliver's scientists in the flying island rejected this convenient, denotating function of language: if language merely substitutes symbols for things, a dialogue becomes more immediate when the things themselves, and not their symbols, are exchanged.

linguistic expression of the movement of (or change in) the concept, the relation between the words themselves is grasped as if it were a relation between concepts. This is the source of the erroneous belief that concepts are the basic units of the statement, and statements are the basic units of syllogisms.

These illusions derive from considering words or representations instead of concepts. When, however, the subject-concept is considered, it is found to be a synthesis, and not a mere aggregate, of the predicate-concepts referred to it. Thus the concept is not a state or a finished product but a process of synthesizing or conceptualization.

Predication (or conceptualization) has a central role in Hegel's philosophy; even the relationship between word and representation is produced only in the course of predication. The sense-image is represented by the word "this" as subject. The representation is, therefore, not the *explanans* of the word, not a predicate. On the contrary, the representation appears in the word "this" as the unknown factor, as subject, whereas the concept predicated of the word "this" must be known in order to answer the question "what is this?" The representation is not the content of the word, nor its concept: it is not a predicate. This is proved by the fact that the word "this," which represents the representation, cannot serve as predicate.

Sometimes the confusion between concept and word is resolved by presupposing "simple concepts." Hegel appears to fall into this error when he asserts that the first subject has as its basis a word. But this contradicts his whole conception of the concept as the totality of the relations into which the word (referring to the concept) has entered. The simplicity of the "simple concept," on the contrary, means the absence of relationships; it means, that is, the complete absence of a concept. Why does Hegel appear to adopt this approach? Because his answer to the question about the concept in general is that it is an accumulation of concepts. And this answer is not applicable to the question about the first subject. Indeed, when the process of knowledge is analyzed starting from the point of view of its elementary units (statements) the question has no answer.

The contradiction in Hegel's answers to the problem of the first predication may be summed up as follows: In the first answer, the subject is a representation and the concept is thus reduced to representation. In the second answer, the subject is a set of sounds

devoid of meaning. In either case it is therefore not clear how meaning (or content) enters the statement. Clearly it is not by means of the first predication.

It is clear from this examination of the matter that the first subject cannot be either a representation or a set of sounds. Such answers go beyond the framework (the statement or concept) in which the problem arises. The true answer must lie in the domain of the concept, and a concept is neither a representation nor a word. It seems, however, that such an answer simply does not exist. Indeed, from the point of view of the elementary units of the isolated process of thought, there is no solution. When Hegel asks about the first subject or about the first predication he must inevitably reduce the subject-concept either to a representation or to a word, and this reduction conflicts with his whole philosophy. This, I believe, is the clue to understanding Hegel and the limits of his philosophy which arrives here at an impasse.

IV

The question can now be restated as follows: what is the subject? The answer is: the predicate. But if we ask: does the predicate match the subject? the question cannot be answered since we do not know what the subject is and it is therefore impossible to know if the predicate matches it.¹⁷ But Hegel's question, "what is the first subject?" is so inevitable that he feels bound to answer it and does so in a contradictory statement. Why does Hegel feel compelled to ask the question and answer it?

Hegel's question is inevitable since in each elementary unit of thought, that is, the statement, the universal is the mediator and known aspect which supplies the subject with content. From the point of view of the process of knowledge as a whole, however, the opposite is true: the individual is the given and the universal is produced from it, since the universal is a kind of generalization, and generalizations derive from specific instances. From the point of view of the units of thought, the universal precedes the individual.

¹⁷ This is a sophisticated version of Meno's paradox of knowledge: You cannot learn what you do not know, since you do not know what there is to learn. Cf. Plato's *Meno*, 80d-e.

From the point of view of the process of thinking as a whole, the individual precedes the universal.

Hegel is aware of the difference between elementary units and the process of thinking. But when he analyzes the process of thinking itself, he adopts the point of view of the elementary units (the statement). From this point of view, the question about what is the subject-concept has only one answer: an accumulation of predicate-concepts. That is to say, the universal (the predicate) precedes the individual (the subject) in every elementary unit. The universal is a given while the individual is a product of the process of predication. And since the process of thought is composed of elementary units of thought (statements), and in each unit the universal precedes the individual, we inevitably arrive at the odd conclusion that the universal precedes the process of thought as a whole, under the guise of an innate idea or an *a priori*. Hegelian idealism is marked by this primacy of the universal.

The individual is not, in Hegel's philosophy, a primary datum of knowledge. From his point of view, which asserts the primacy of the universal, the most individual entity is, even before predication, a "this," that is to say, it is already a generalization, in fact, the most abstract possible generalization. The most individual is therefore the most abstract; the most sensible is the most inapprehensible. There is no concrete sensation. What the laymen considers the most concrete is, for Hegel, the most abstract. The concrete is mediated by the universal of thought, by the concept. Since the immediate, the sensation, is, for Hegel, the abstract, the individual is always deduced from the universal (the concrete) and never the reverse.

It is worth noting that Hegel does not ask about the origin of the universal. It is presupposed in every thought. His question is only about the individual. In his philosophy the individual *qua* individual remains unknown. The question about the individual is a question to which there is no answer, since priority is given to the universal. The individual is deduced *in toto* from the universal. But this means that the universal is grasped, by his method, as a concrete-universal, that is, a universal that explains the specificity of the individual and not as a universal that ignores it. Hegel's critique of the genera and species concepts as universals is that precisely in them the genera is indifferent to its species and the species is indifferent to the individuals. The concrete-universal, on

the other hand, can develop specificity from within itself. This is the kernel point of Hegel's idealism, that is, the specific primacy of the universal.

This point becomes clearer when we observe the order of exposition in his logic of the concept in *Science of Logic*. From the very beginning this primacy of the universal is clearly stated. The order of the exposition goes from the universal to the individual, so that the individual is explained as a product of the universal as totally deduced from it. The individual is a negation of the negation of the universal, that is to say, it is a return to the universal from which it has derived. What does "the individual returns to the universal" mean? It means that any attempt to determine its individuality presupposes universality. When we try to define the individual, we say that the individual is "a qualitative entity, that is, a 'this'." But then we are, in effect, rejecting individuality, since the form "this" presupposes "others": "this" means "no-others."¹⁸ That is, the immediate individual is mediated by the universal precisely in its singularity, in what makes it different. Indeed, to be individual means to be different, and for a thing to be different means to be defined by what it is not, that is, to be defined by those things from which it differs. Difference pertains to the universal concept. The universal concept is self-differentiated into individuals. The analysis of individuality leads to its relationship to universality, that is, to the statement. The next stage is to analyze the process itself, of which statements and syllogisms are units. But Hegel, in analyzing the process, regards it not from the point of view of the process itself, in which the individual precedes the universal, but from the point of view of its units, that is, from the point of view of the primacy of the universal. Thus in the chapter "Das Urteil,"¹⁹ Hegel analyzes the process of thought itself which begins with the abstract universal (in the "statement of existence") and ends with the concrete universal (in the "statement of concept"). This process, I repeat, is analyzed not from the point of view of the process but from the point of view of its units. In each statement, individuality is determined by universality.²⁰

¹⁸ *Wissenschaft der Logik* II, 300.

¹⁹ *Ibid.*, 301-51.

²⁰ Individuality is determined at each stage by a different and more concrete universal. But this matter is subsidiary to the subject of this

The problem of the circular origin of the subject has no solution since Hegel starts from the elementary and abstract units of thought and not from thought as part of the historical process of creation of the thinking-man. The circularity remains without solution since Hegel deduces thinking-man from thought, and not thought from thinking-man in his historicalness. In Hegel, subject and predicate are inverted: thought is not an attribute of man, but man is an attribute of thought. Hegel, ultimately, explains, by means of the already explained, only the *explanans*. But the question is to explain the *explanandum*. The historical process alone can offer an accurate answer; since this has not been attempted, the *explanandum* remains unexplained.

The alternative, therefore, to the Hegelian perspective would be to sublate (*aufheben*) the point of view of the elementary-units and to try to analyze the process of knowledge from the point of view of the process itself. The image of knowledge that emerges in this way is very different from Hegel's: the process as a whole no longer advances from the individual to the universal, and the starting point is now sense-phenomena and not individuals. Individuals are only mental entities (which is Hegel's standpoint too) and the consideration of mental entities alone—if the process of thought is taken as being its own *terminus a quo* and its own *terminus ad quem*—will not enable us to break the circularity.

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paper. It is discussed in my "Quality, Genus and Law as Forms of Thinking," *Auslegung* 13, no. 1 (1986): 71-85.

CRITICAL STUDY

CHARLES TAYLOR, *SOURCES OF THE SELF*

RUSSELL HITTINGER

I

In *Sources of the Self*, Charles Taylor proposes that modernity is much richer in moral resources than what its critics allow, though "this richness is rendered invisible by the impoverished philosophical language of its most zealous defenders."¹ Modernity, he insists, must be regarded as an "epistemic gain," even if it is true that its philosophy has proved to be persistently inarticulate, wrongheaded, and, on the whole, has betrayed the distinctive contributions of modernity (p. 312). His stringent criticism of what he variously calls the "disengaged," "procedural," and "punctual" self of classical modern theorists is not altogether different from the analyses familiar to readers of communitarians like Michael Sandel. *Sources of the Self* is a revisionist history that refits the career of the modern "self" to the problems favored by communitarians: the failure of all efforts to subordinate the good to the right; the shallowness of procedural rather than substantive accounts of the self; the need for what Clifford Geertz has called "thick descriptions" of agency; the need to attend to the narrativial and socially contextual features of action rather than to quasi-scientific accounts; and finally what has become a recurrent theme among nearly all the critics of Enlightenment moral philosophy: that the agent's vision and allegiance to the good holds a higher place in morality than do action-guiding prescriptions about conduct.²

¹ Charles Taylor, *Sources of the Self: The Making of the Modern Identity* (Cambridge, Mass.: Harvard University Press, 1989), p. x. Hereafter, this work will be cited parenthetically in the text by page number.

² Taylor builds upon his own previous work in these areas. On the debate between liberals and communitarians, see Taylor's essay "Cross Purposes: The Liberal-Communitarian Debate," in *Liberalism and the Moral*

What is exceptional about Taylor's new book, however, is that he does not distinguish between practices and theories, or between sources and justifications in order to leave theory aside. What sets this book apart from the work of kindred theorists is Taylor's argument that the life of practical reason and moral agency requires strong philosophical articulation of the cultural sources. For Taylor, what it means to philosophize strongly about human conduct is nothing less than achieving philosophical articulateness about architectonic values, or what used to be called final ends. He maintains that articulateness about piecemeal goods—"life goods" of various sorts which trigger our deliberations and choices—is insufficient. Philosophy is not needed to sort out the life goods, but rather to articulate the stance agents take toward these goods. The question worth asking is not whether there are goods, but whether there are constitutive goods which empower the agent to love and to unify the goods according to a vision of rational order. An "absolute question," he says, "always frames our relative ones" (p. 47).

The issue here is important, involving our estimation of what is to be gained by philosophizing about matters of moral agency. Some goods press upon us persistently, and accordingly, our appreciation of them requires little in the way of philosophizing. As H. L. A. Hart once pointed out, one need not engage in "grandiose" theories of human nature and finality in order to understand that the vulnerabilities of life and exigencies of survival require a minimal moral content to law.³ Although different cultures emphasize certain life goods differently, it is a "truism," Hart observes, to say that the effort to protect and enhance physical life and property, to proscribe the arbitrary use of lethal force, to reproduce a given economic and political order over time, are cross-cultural goods which, he argues, are tailored to the condition of human vulnerability. One can leave it to the cultural anthropologists to explain the generic, cross-cultural features of these life goods, and how they differ from culture to culture. The point is that moral agency *can* be pictured

Life, ed. Nancy L. Rosenblum (Cambridge, Mass.: Harvard University Press, 1989), 159–82. For earlier collections of essays which provide groundwork for *Sources of the Self*, see Taylor's *Human Agency and Language* (Cambridge: Cambridge University Press, 1985), and *Philosophy and the Human Sciences* (Cambridge: Cambridge University Press, 1985).

³ H. L. A. Hart, *The Concept of Law* (Oxford: Oxford University Press, 1961), 189.

as so gripped into the requirements of life goods that one need philosophize only weakly. Therefore, theorists who undertake to develop prescriptions which efficiently guide choices with respect to the goods, rather than conducting inquiries into the meaning of the goods, can be said to philosophize weakly. Indeed, one might agree with Hobbes that the effort to philosophize too strongly about such values is a dangerous impediment to moral agency, or in any case to the minimal *ordo juris* necessary to protect it. Such philosophizing distracts agents from the consensus that needs to be maintained with respect to basic life goods.

If, however, we ask questions about what Taylor calls "constitutive goods" (p. 93)—a good or goods which empower and motivate the agent to conceive of the moral life as a whole—then weak philosophizing will not suffice. The ordering and pursuit of goods as something more than the sum of their parts is not a task about which we are immediately articulate. Learning how to thematize and make judgments about which goods are higher and lower, more or less inclusive, ultimately more befitting of human agency, involves a wider threshold of articulacy than learning, for example, to appreciate that the fear of violent death ought to be alleviated. Where the question is limited only to those means by which we can satisfactorily guide our stimulus-response patterns, and to do so in a way that meets either a deontological principle of fairness or a utilitarian standard of benevolence, weak philosophizing will be the order of the day. Where, however, the question involves which ends ought to be pursued, and which among the apparent ends are most noble, and hence praiseworthy, a quite different level of reflection needs to be summoned. Perfecting the self exacts more thought than learning how to satisfy hunger, or for that matter, how to prescribe just arrangements for its satisfaction. Taylor thus enlists philosophy for the task of articulating the "spiritual" qualities (his term, p. 4) of the self. In short, philosophy is to have a somewhat more dignified office than merely serving the instrumentalities of life goods—and this, despite the fact, as I will point out shortly, that the modern value Taylor is most eager to bring to our attention is the affirmation of ordinary life.

Taylor argues that the stronger mode of philosophizing is warranted because efforts to render "strong evaluations" of goods according to hierarchical contrasts (higher and lower, more or less inclusive) represent a "transcendental condition" not only of prac-

tical rationality, but of agency and identity as well (p. 32). This judgment organizes the subsidiary arguments and inquires of *Sources of the Self*. For Taylor's argument, running fugue-like throughout, is that the truly valuable gains of modernity have been betrayed and misconstrued by philosophical methods which insist upon offering only weak accounts of moral agency, even though these philosophies are motivated by quite strong evaluations (of an ontological sort). Modern philosophy has shortchanged modernity.

What exactly is being shortchanged? Taylor focuses upon three modern moral sources. First, modern persons believe they "have" an inwardness, as a basic ontological property like "having" arms and legs. Second, beginning in the early modern period, and specifically in the Reformation, modern persons affirm ordinary life as the proper theater for finding and developing the self. Ordinary life, Taylor explains, designates "those aspects of human life concerned with production and reproduction, that is, labour, the making of the things needed for life, and our life as sexual beings, including marriage and the family" (p. 211). Third, the philosophical and literary culture of the nineteenth century developed what Taylor calls an "expressivist" notion of nature as an inner moral source. Nature, here, is not simply the indeterminate material that a self, equipped with method, organizes as something external to itself; rather, nature is an inner fund of potentialities to be expressed, through which expressions an original selfhood is acquired.

Whatever the epistemological predicaments and uncertainties produced or occasioned by modernity, Taylor contends (perhaps against MacIntyre and Foucault) that these sources are an "epistemic gain" which "represent real and important human potentialities" (p. 313). The different and often conflicting schools of modern moral philosophy are all motivated by these sources, however else they might disagree and however evasive and inarticulate they have proved to be philosophically. The task that Taylor sets for himself in *Sources of the Self* is to rearticulate the sources of moral empowerment "suppressed" by modern philosophies, and thereby to recapture "languages of higher worth" which are presupposed by modernity (p. 104).

Our purpose in this essay is to discuss Taylor's understanding of "languages of higher worth." However, because his account of the historical genesis and development of the triad of sources occupies the larger share of the book, we make no attempt here to

reproduce his account at its proper level of historical detail and complexity. In six hundred pages, Taylor sweeps across nearly half a millennium of history, treating matters of religion, art, and philosophy. A brief discussion of the modern notion of subjective rights, presented early on in the book, will perhaps suffice to indicate his understanding of how the triad of values are magnetized around one signal feature of modernity.

It is well known, of course, that in the seventeenth century philosophers and jurists on both sides of the English Channel began speaking the idiom of universal, natural rights. Taylor points out that schemes of natural rights, at least at the outset, proscribed most of the same things as did the older morality of natural law—for example, the taking of innocent life. However, in the newer natural rights framework, rights are construed as active, which is to say that rights are not just claims about how agents must respect a pre-given moral order, but about how subjective agency itself must be respected. The unique core of modern natural rights theory is respect for the right of the agent to act, and to put something into effect. The agent's concurrence and cooperation is central, whether in ecclesial polity, civil contracts, or in the liberty (as J. S. Mill argued) to develop "individuality." In short, modern law and morality are keyed to the value of the self being put into play, and this, Taylor argues, "expresses a central feature of the modern Western moral outlook" (p. 12). It is clearly in contrast with ancient and medieval understandings of natural principles of justice which, when articulated in the language of rights, tend to construe rights as passive; that is to say, an agent deserves (has a right) to be treated rightly, no matter the degree of active concurrence. The idiom of rights in the older systems of natural law is entirely derivative from either the language of natural duties and virtues, or from given societal offices and functions.

Taylor quite rightly emphasizes that the term "living according to nature" can take on a set of new meanings in modernity (p. 279). From the early Lockean accounts of personalization of property, through the Kantian understanding of moral selfhood as transcending the status of being a thing alongside other things, to the expressivism of J. S. Mill, in which the individual creatively constitutes individuality as a kind of second nature, the common element is a respect for the active, concurring self, whose natural liberty is engaged in the mundane tasks. The value of liberty is not proportioned

to the *libertas* which, in medieval Christian theology, was held to be the very point and value of the *liberum arbitrium*. As Augustine argued, free choice is at best an intermediate good.⁴ For Augustine and his followers, the capacity to enjoy the fruition of volitional activity, which of course is a state that transcends choice, is the chief indicator of selfhood. Mundane volitional acts are understood, by analogy, to take their meaning from a theological picture of what it means to act "according to nature." In modernity, the terms are transposed: the self is revealed in its discrete activity, in the intermediacy of desire and choice, concurring through acts of choice in mundane settings, such that the very putting of the self into play is the condition of other values.

One can scarcely understand, for example, the American constitutional law of rights and civil liberties without grasping that the value of subjective rights is the right of self-constitution rather than an intermediate liberty to achieve other ends. As Justice Blackmun wrote recently, the right of privacy must include, if it includes anything, the right to a "personal, intimate and self-defining decision."⁵ This right of self-definition and lifestyle preferments is to be extended and vindicated in ordinary settings and institutions: hospitals, schools, the military, the marital bedroom, tenure committees. As Lawrence Friedman has argued, the salient feature of modern law is the expectation of "total justice."⁶ No institution, no matter how crucial to the public weal, ought to be immune from that justice which guarantees the right of the self to put itself into play. It is precisely the interrelation between the modern notion of the active self and the commitment, as Taylor puts it, to ordinary life that reveals what is distinctive about modern notions of rights and moral agency. So long as we cast the picture at this level of generality, Taylor's triadic scheme of sources is an accurate way to map modern moral phenomena.

Whether these sources of the modern self constitute "gains," whether the valuing of the active, mundane, expressive self can be reintegrated with what Taylor calls "languages of higher worth,"

⁴ *De libero arbitrio*, II.xix.

⁵ *Webster v. Reproductive Health*, 57 U.S.L.W. 5023, at 5038 (1989). (Blackmun dissenting.)

⁶ Lawrence M. Friedman, *Total Justice* (New York: Russell Sage Foundation, 1985), 80-93.

and whether, finally, the philosophical inarticulateness characteristic of modern thought is incidental to these gains, are questions which need examination. The notion of a subjective right, grounded in the concurrence of the agent, has been expressed in its various modern languages as a value that need not be—indeed, ought not to be—contextualized within a scheme of value higher than itself. We need to know how a recovery of “languages of higher worth” reveals anything of modern life if indeed modern political and legal institutions are constructed to consign such language to the private. Are we looking at what is implicit in the private lives of modern people, or are we trying to articulate what is implicit in public institutions? Are these, in modernity, two different things? Taylor is never quite clear at which level these yet-to-be-articulated sources of modernity are to be found. His analysis, brilliant and suggestive as it is, nevertheless moves across literary, philosophical, cultural, and political strata of modernity in a way that makes it unclear which public or private “self” needs, or for that matter, is even amenable to, “languages of higher worth.”

It is necessary now to take up Taylor’s argument for the need to articulate philosophically higher goods. First, we will examine his understanding of what it means to engage in a “strong evaluation” of goods. Then, we will turn to the problem of whether incommensurabilities between goods thwart strong evaluations. Finally, we will conclude with some thoughts as to whether a retrieval of strong evaluative frameworks brings us closer to modern sources.

II

“Strong evaluation” is a term that Taylor uses for discriminations “of right and wrong, better or worse, higher or lower, which are not rendered valid by our own desire, inclinations, or choices, but rather stand independent of these and offer standards by which they can be judged” (p. 4). Strong evaluations assume some contrast between mere desirabilia and goods which lay a claim upon us concerning what kind of life is worth living. Human agency and identity, Taylor argues, requires a framework of strong evaluation, for agency is never simply a matter of enacting responses to piecemeal desires. The relation between an agent and the good is, above all, traduced by interpretation. Interpretations of the good always in-

volve "a given ontology of the human" (p. 5). We gather from Taylor's account, however, that the problem with bringing the frameworks of strong evaluation to the forefront of inquiry is at least twofold.

First, the ontological standards are often implicit rather than explicit in the contrasts agents draw when making judgments about the good. Ontological values are not altogether transparent to our focal interest in practical matters of making and doing. They need articulation. On this score, Taylor is careful to say that he does not have in mind the development of a speculative ontology which can then be used *more geometrico* to establish what we ought to value (p. 73). For all his interest in reestablishing the ontological framework of moral agency, Taylor, thankfully, eschews the preoccupation with apodicticity found in the work of Habermas, Gewirth, and other theorists who likewise want to find strong rational grounds for moral agency, but who want to do so in advance of any full-bodied picture of the good. Taylor contents himself with the supposition that agents are in fact moved by goods which are strongly valued, and that these goods deserve to be articulated. Although there is a retorsive argument that crops up in his discussion (aimed at modern epistemologists who debunk ontologically described values even as they presuppose them), there is no indication that he is interested in grounding his account of strong evaluation in a set of apodictic truths.

Second, modern philosophy has tutored us to believe that it is not possible, or at least unnecessary, to articulate the ontological assumptions which generate strong evaluations. Rather than treating the implicit ontological claims as a "mode of access to the world" in which those claims can be articulated, sifted, and argued about, modern philosophies, Taylor charges, tend to recede from the ontological terms and assign reason the task of calculating the desirabilia instrumentally. Agency is depicted as disengaged, punctual, and rule-abiding. Hence, he observes, modern moral philosophy is not only obstinately inarticulate about ontological assumptions, but also, for that very reason, it narrows what counts as a moral question (p. 4). "The focus," he laments, is on "the principles, or injunctions, or standards which guide *action*," rather than "visions of the good" (p. 84). Preoccupied with prescriptive, action-guiding terms, modern moral philosophy has suppressed interest in inquiring about the "qualitatively higher" goods, as well as the languages

necessary for articulating them. Apparently, this is one of the downsides of the modern notion of the active self, which Taylor otherwise subscribes to, and in any case wishes to rearticulate in stronger ontological terms.

Before we render a judgment about what has yet to be adequately articulated in modern traditions, we need to know more clearly the grounds for making strong evaluations of goods. A strong evaluation, we recall, involves contrasts and comparisons between goods. Do goods lend themselves to commensuration? Taylor tackles this issue in a number of indirect ways, though not satisfactorily. Goods, of course, are commensurable if they are homogeneous. So put, commensuration is not an ontological problem of the nature and meaning of the goods, so much as an instrumental one—the agent must calculate the distribution of value according to a net yield. Taylor's understanding of strong evaluation is directly at odds with any quantitative model of commensuration. Thoroughgoing quantitative commensurability would collapse the point of entry into strong evaluations. Therefore, the issue of commensuration becomes interesting only if we make two assumptions: (1) that goods are irreducibly different in value, not only one by one, but according to qualitative ranges and degrees as well; (2) that there are common properties which allow them, in some significant way, to be compared. The issue turns upon the second assumption. As Joseph Raz has put it: "A and B are incommensurable if it is neither true that one is better than the other nor true that they are of equal value."⁷

Taylor is prepared to admit that goods are not perfectly combinable (p. 61). Thus, incomparability can take the meaning of *not-combinable-without-remainder*. This is a weak notion of incommensurability, for it only takes note of the possibility that goods otherwise comparable cannot, for one contingent reason or another, be perfectly combined. In fact, Taylor is as eager to reject strict incommensurability as he is to set aside the crude utilitarian picture of commensurability. The contrast between higher and lower goods presupposes that independent of our desires, they are in some way comparable. For even to say, in a modern if not Kantian vein, that the value of our interior selfhood ought not to be compared on the

⁷ Joseph Raz, *The Morality of Freedom* (Oxford: Clarendon Press, 1986), 322.

same footing with things which have the mere value of exchangeable commodities is not to reject commensuration as such, but is rather to admit the finding of a comparison: namely, that having compared the two, one is inestimably higher than the other, and therefore one ought not to trade the higher for the lower. As Taylor has said elsewhere, a strong evaluation of goods requires that the predicament of incommensurability not be the last word. Faced with contending ways in which goods are organized, the question at issue, he says, "concerns which is the truer, more authentic, more illusion-free interpretation, and which on the other hand involves a distortion of the meanings things have for me." "Resolving this issue," he remarks, "is restoring commensurability."⁸ Here he apparently means that the agent must compare alternatives in the light of an end—for example, the authenticity of the self. This is a recognizable picture of how commensurability might arise in deliberation about goods. The agent does not directly compare two options—say, two different professional careers—in the fashion of comparing apples and oranges. The effort to commensurate in this way is bound to produce dilemmas because it is not clear that the value of being an excellent architect is directly comparable to the value of being a great statesman. The two can, however, be commensurated *if* one furnishes a more inclusive end, and then goes on to judge which excellence more befits that end.

Indeed, deliberation about means toward an end would seem to always involve commensuration. *A* and *B* are compared insofar as they are relative to the end *C*. To deny this level of commensuration between goods would be tantamount to pulling the rug out from under practical reason. If we cannot compare goods as means, then there is nothing to deliberate about. Every volitional act could move immediately from intention to choice. However wanting the utilitarian account of practical reason, it is the attention that utilitarians give to the moment of commensuration that satisfies our commonsense understanding of what we do when we deliberate, which is to consider (prior to choice) how goods are arranged in clusters, and which actions serve which ends.

The crucial question is whether goods having the quality of ends (*bona honesta*, for the ancients) are amenable to similar acts

⁸ Charles Taylor, "What is Human Agency," in *Human Agency and Language* (note 2 above), p. 27.

of commensuration. If strong evaluations only involve contrasts between the relative value of means, then Taylor's critique of modern moral philosophy does not advance the issue. As I will point out shortly, on his account, the business of strong evaluation attends to goods of a higher range which are capable of organizing lower ones in some whole-part hierarchy. Are plural ends, each of which stand capable of organizing and developing modes of human realization, incommensurable?

Interestingly, this question has been answered in the affirmative by theorists as different as Joseph Raz and John Finnis on the one hand, and John Rawls and Steven Lukes on the other. Steven Lukes, for example, contends that incommensurability of goods is the salient point of any distinctively modern account of practical reason. Modern political systems turn decisively upon the supposition that there are many and conflicting visions of the good life which are compatible with human rationality.⁹ This supposition, Lukes adds, is a "cultural fact," and therefore theories that try to commensurate styles of life not only defer the issue of justice in favor of working out a metaphysical, if not a religious, vision of the good, but also fly in the teeth of the cultural and political pluralism which all legitimate theorizing is bound to serve.¹⁰ Raz, on the other hand, argues that incommensurability brings up short any effort to reduce moral questions to the narrow interest of the rules of justice. The goal of justice and politics is always a matter of encouraging *valid* conceptions of the good—not just the good as justice.¹¹ And finally, for Finnis, justice is but one of a number of basic goods which are incommensurable with one another.¹² Hence, one side invokes incommensurability in order to defend liberal polity against metaphysical hierarchies, the other side invokes the principle in order to resist reduction of goods to the index of justice as fairness.

Early in *Sources of the Self*, Taylor acknowledges the possibility that the various organizations of human goods into ways of life

⁹ How we know, in advance of any theory of the good, that the conflicting points of view on the good are compatible with human rationality, would seem to beg the question.

¹⁰ Steven Lukes, "Making Sense of Moral Conflict," in *Liberalism and the Moral Life* (note 2 above), p. 139.

¹¹ Raz, *The Morality of Freedom*, 133.

¹² For a recent statement on the incommensurability of basic goods, see Germain Grisez, Joseph Boyle, and John Finnis, "Practical Principles,

might be incommensurable. The question here is not micro-level incommensurability between life goods, but rather some fundamental incomparability between ways in which the human good is seen as a whole. He states: "There may be different kinds of human realization which are really incommensurable. This would mean that there would be no way of moving from one of these to the other and presenting the transition without self-delusion as either a gain or a loss in anything" (p. 61). Notice that the transition does not concern a comparison between piecemeal desirabilia, such as relative desirability of having a cup of coffee in comparison with taking a walk around the lake. Rather he is raising a deeper issue: whether "kinds of human realization" are incomparable. If they are, then incommensurability would prove to be the absolute limit to what we are summoned to articulate and debate about human conduct. We would not be able to say whether this or that organization of goods is better or worse than another, but only (1) whether it itself contains something of human fullness, including the moral component, and (2) whether this or that deployment of means is more apt to serve the end we have in mind. If it is true that switching from one end or telic cluster to another can be done without having to represent the transition as a gain or loss, then it would seem to follow that philosophical inquiry will have to content itself with a much lower order of contrasts. The basic gist of Rawls's prioritizing of the right over the good would be on solid ground. His basic goods in the original position are, after all, not indicative of an ontologically or hierarchically superior end, but are rather the necessary conditions of agency. He makes no claim regarding the sufficiency of ends. Indeed, Rawls contends that efforts to commensurate the heterogeneous aims of the self according to some dominant good are liable to strike us as fanaticism.¹³

Although Taylor raises the possibility of such incommensurability, he does not give it the final word.¹⁴ As I pointed out, were all goods incommensurate, including those which typically surface

Moral Truth, and Ultimate Ends," in *The American Journal of Jurisprudence* 32 (1987): 110. For an examination of their position, see my essay "Varieties of Minimalist Natural Law," *The American Journal of Jurisprudence* 34 (1989): 155-163.

¹³ John Rawls, *A Theory of Justice* (Cambridge, Mass.: Belknap Press, 1971), 553f.

¹⁴ In *Sources*, 62, he refuses to rule out the possibility of cross-cultural comparisons. The prospect is raised, but quickly dropped.

as ends rather than as means, the criticism Taylor mounts against modern philosophy would fizzle. Modern philosophers are by no means the first to take note of the fact that different people say different things about what finality consists of. Which is only another way of saying that people disagree about which goods are incomparably higher and accordingly which other goods should be made relative. Should there prove to be no illusion-free way of comparing these higher goods—or more accurately, claims about higher goods—then modern moral philosophers can hardly be accused of inarticulacy. Throughout *Sources of the Self*, Taylor takes the reader to the threshold of this issue. Though intimating how he might resolve the problem (especially in connection with remarks he makes in passing about theology),¹⁵ Taylor does not resolve the problem in these pages. He does, however, have more to say about the matter.

Among the reasons for keeping alive our suspicion that the domain of ends can be articulated and argued about is the fact that moral theorists, from the ancients onward, have made claims about “hypergoods.” By “hypergoods” Taylor means goods which “not only are incomparably more important than others but provide the standpoint from which these must be weighed, judged, decided about” (p. 63). Thus Plato posited a transcendent Good, the love of which empowers the human soul; Aristotle, at least on one account, emphasized that contemplation is the highest good; Christianity has made claims about God that authorize the subordination of other goods; Kant holds up the priority of volitional rectitude over the good of happiness; utilitarians stress the overriding good of benevolence. That the enduring moral theories of the western tradition have posited various and sundry “hypergoods” and have argued about which ones are rationally defensible is beyond question. Theorists who suggest that we need not concern ourselves with claims about higher goods are, in Taylor’s view, out of touch with the history of their own profession. Nevertheless, there remains the nagging problem of an objective standard of commensuration suitable for judgments that one or more goods are “incomparably more important” than others.

For his part, Taylor is ambivalent about hypergoods. On the one hand, he wants to say we are not full beings until we can articulate what our lives are built around (p. 92). Human agency would

¹⁵ *Sources*, 311, 319, 342.

be terribly deformed were we unable to have at least some success at articulating the moral vision that moves us in an architectonic fashion. Indeed, he holds that hypergoods are "ineliminable" from our best accounts of who we are as moral agents (p. 69). On the other hand, he argues that the language of hypergoods is a source of the inarticulacy that handicaps modern philosophy. This assertion needs further examination. Hypergoods, Taylor remarks, "cannot but provoke an epistemological malaise" because the language of overriding goods feeds the reductive temper of modern philosophy (p. 66). The rich complexity of moral agency is reduced to one or another overriding good. "This drive towards unification," he argues, "far from being an essential feature of morality, is rather a peculiar feature of modern moral philosophy."¹⁶ What is deficient about modern moral philosophy, then, is not that it lacks all interest in strong evaluation, but rather that strong evaluations are made reductively. True enough, talk of hypergoods can eliminate the axiological distinctions which allow one to make constructive sense of strong evaluations. This language can exist along with anti-perfectionism, and if Taylor is right about modern philosophy, the two usually go hand in hand. One only need pause to consider what is suggested by the word "overriding" to savor the reductive flavor of hypergoods. A value like survival, money, or self-respect can be affirmed as dominant or overriding without rendering any other judgments about what human flourishing consists in, much less contrasts between higher and lower modes of life. On this score, Taylor wants to defend incommensurability against the deployment of hypergoods which bleach out the distinctions between goods.

Furthermore, hypergoods have the malign characteristic of promoting disdain for life goods, and of leading to indifference, carelessness, and even rejection of the ordinary contours of values.¹⁷ In this connection, hypergood language has buttressed political and economic elites—priestly, aristocratic, and bureaucratic classes. Philosophers are always ready to press theorizing (about hypergoods) into the service of these elites. Therefore, on the political

¹⁶ *Sources*, 77. His case on this score is similar to the one made by Edmund Pincoffs in *Quandaries and Virtues: Against Reductivism in Ethics* (Lawrence, Kan.: University of Kansas Press, 1986).

¹⁷ Taylor's syllabus of these malign characteristics can be found in *Sources*, 64–71.

and social side of the issue, Taylor is quick to point out that hypergoods can feed a political reaction against elites, and thus hopelessly confuse legitimate political claims about equality with the issue of whether higher values exist. Thus hypergood language can stand at odds with one of the "sources" of modernity—namely, the affirmation of ordinary life. Taylor writes: "The various offshoots of the modern affirmation of ordinary life have engendered a suspicion of the claims made on behalf of 'higher' modes of life against the 'ordinary' goals and activities humans engage in. The rejection of the higher can be represented as a liberation, as a recovery of the true value of human life" (p. 81). In short, hypergoods set up a kind of outrage against hypergoods, and what gets lost in the polemic is that the affirmation of ordinary life is itself a sort of hypergood.

For all of this, Taylor nevertheless is unwilling to jettison hypergoods. Instead, he re-presents judgments of incomparable worth in terms of "constitutive goods." One might ask whether this is a distinction without a difference. The term "constitutive good" sounds less menacing than "hypergood." In any case, a constitutive good, by definition, is "something the love of which empowers us to do and to be good."¹⁸ In contrast to the kind of hypergoods which bother Taylor, a constitutive good is never a merely dominant or overriding good (to which action-guiding rules can be keyed), but must always be inclusive of other goods. Taylor recognizes that the language of constitutive goods is apt to be even more disagreeable to modern theorists than the rubric of hypergoods. "These theories," he notes, "balk even at acknowledging life goods; they obviously have no place at all for a constitutive good which might stand behind them" (p. 93). Modern philosophers, he repeats, seem to be caught in the "strange pragmatic contradiction" of drawing upon constitutive goods even while denying them. They are "constitutionally incapable of coming clean about the deeper sources of their own thinking" (p. 88). Be that as it may, the model put forward by Taylor (at least rhetorically) sounds like a variation on Christian Platonism. Goods are depicted as higher or lower, standing above or behind the agent, summoning the intellect and will to a vision of what is worthy to be loved for its own sake. To be sure, he contends that there are modern versions, for example, Kant's notion of the

¹⁸ *Sources*, 93. This comports exactly with the more benign definition he gives of a hypergood on p. 69.

inherent dignity of rational agency (p. 94), the Marxist theme of liberation from bondage (p. 96), or the universal altruism and benevolence implicit in Utilitarianism (p. 84-5). The narrative of the Enlightenment, he points out, empowered its adherents precisely because it represented a constitutive, rather than a merely overriding, good of rational liberty and responsibility—a good that ties together the significance of other life goods (p. 383).

The reader might suspect that there is a theology that is crucial to, and yet left inarticulate in, Taylor's treatment of these issues. He does explain, in some detail, that at least two of the modern "sources"—the interiority of the self, and the affirmation of ordinary life—were drawn from theistic convictions: from Augustine and from the Reformation, respectively. Taylor complains that some contemporary critics of the Enlightenment read modernity "through its least impressive, most trivializing offshoots" (p. 511). Yet he himself emphasizes the importance of epistemologists who are justifiably branded as reductionists. It is as though the carriers of the virus are the ones which bring us closest to the modern sources. This makes sense if we suppose that the "strangely inarticulate" epistemologists (Descartes, Locke, and others) reveal most directly modernity as a concrete way of life. The theologians, however, are noticeably absent from this account. Whether we are dealing with the historical and cultural patterns which harbor "sources" or with modern theorists, there is little indication on Taylor's part of theological developments and tensions. The theologians and metaphysicians of modernity make cameo appearances in the story. On the whole, Taylor's historical picture of modernity leaves him little ground for philosophizing about any uniquely modern contribution to languages of higher worth.

III

This leaves us with questions which are both philosophical and historical. We will take up the philosophical question first. Taylor's understanding of strong evaluation requires a distinction between our reactions to mere desirabilia and our responses to values. The latter always involve a "given ontology of the human." Summarizing Taylor's position, we have noted that responses to values

are not rendered valid either by desire, nor merely by action-guiding prescriptions whereby we adopt one or another procedural relation to our desires. The terms of strong evaluation stand independent of these. Taylor argues that strong evaluations presuppose a grasp of goods which need to be articulated in ontological terms. Doing so, he asserts, is part and parcel of what it means to be an agent. Given this framework for contrasting the goods, and leaving to one side the phenomena of mere desirabilia, Taylor envisages further contrasts among the strongly valued goods. A constitutive good or goods, he explains, orients agency in some architectonic way. Bringing ourselves into proper relation to it will empower us to love and order the other goods. Were the goods to be strictly incommensurable, this view of agency would wither, for the scheme thrives on comparisons and contrasts between different goods and ranges of goods. The standard of an "incomparably higher" good or goods is not indicative of incommensurability, but of precisely the opposite. It not only presupposes a judgment drawn from a contrast, but also a judgment of how goods are constituted. A constitutive good, on Taylor's account, can never simply stand alongside other goods in the manner of a reductive hypergood—for example, in the way one might claim that justice as fairness is so dominantly important that we can hope to achieve rectitude in moral agency regardless of how we stand toward other goods. Rather, a constitutive good is like Plato's Good, or Augustine's God—to use Taylor's own recurrent examples. Indeed, the constitutive good would seem to require a method of commensuration that presupposes a distinctively pre-modern understanding of analogy and participation, if not the transcendentality of the good.

The philosophical question, then, is whether Taylor's position needs a much stronger model of final end(s) than what he explicitly deploys in the book. Concerning the language of higher goods, he writes: "The picture of moral life in which a hypergood figures is one where we are capable of growth from a 'normal', or 'original', or 'primitive', or 'average' condition, in which we acknowledge and orient ourselves by a certain range of goods, to a recognition of a good which has incomparably greater dignity than these. Our acceptance and love of this good makes us re-evaluate the goods of the original range" (p. 69). Strike out of this picture any rhetoric of renunciation and denunciation of ordinary goods, substitute the more

benign term “constitutive good” for “hypergood,” and we are still left with an identifiably classical view of human agency. Do languages of higher worth bespeak anything about reality, human or otherwise, that authorizes us to speak in this way? Are they reasonable, or do they indicate merely the metaphysical and religious excesses of the mind? Taylor tells us that philosophers are not of much help in this regard. Modern philosophers resist the very language of higher goods; pre-modern philosophers wanted to establish an antecedent metaphysical framework that generates conclusions in the light of which the agent might then insert his own perspective. The first rules out metaphysics in advance, the other puts metaphysics ahead of agency (p. 73).

We can appreciate Taylor’s reluctance to rush in with a fully developed metaphysical agenda. As he notes, it is surely implausible that human agents need metaphysical or epistemological theories as the condition of the possibility of being moved by and of loving higher goods. Experience in living, tutored by traditions, no doubt is the point of entry into inquiry about which ends more befit human agency. Taylor suggests the rival accounts of higher goods can be handled by attending to transitions in moral growth. Well-founded love, he argues, will, upon experiments in living, and upon reflection, tend to resist critique. We can then see whether gains are made in our development. What resists critique will prove to be “provisionally” the best account of higher goods (p. 74). Short of standing in a particular tradition of morality, and of articulating the best account possible within the resources of that tradition, we cannot expect an answer better than the one Taylor gives. The reader of *Sources of the Self* might legitimately expect, however, to know in which tradition Taylor stands. Or, to put it in another way, we want to know whether there is any particular tradition in modernity (in contrast to the generic “sources” identified by the author) that might favorably respond to Taylor’s remediation.

Taylor has elsewhere argued, quite rightly, that the ontological issues about human agency ought to be distinguished from policy questions concerning political institutions.¹⁹ He points out that raising questions about the kind of human agent presupposed by

¹⁹ Taylor, “Cross-Purposes: The Liberal-Communitarian Debate,” in *Liberalism and the Moral Life* (note 2 above).

standard liberal theories (as do MacIntyre and Sandel) does not necessitate policies antithetical to liberal institutions. Liberals are so eager to protect the latter, he observes, that they restrict the range of legitimate ontological questions.²⁰ Picking up the same theme in *Sources of the Self*, Taylor points out that this can only lead to "cramped theories" which scale down theorizing, in the manner of Procrustes, to the level that renders it safe for the policies one has in mind (p. 89). Yet one can just as plausibly view this restriction as precisely what it takes to protect the modern "sources" and "gains" from stronger modes of philosophical inquiry, such as the one adumbrated by Taylor. Perhaps the chief gain of modernity is the creation of institutions which get along fine without frameworks of strong evaluation.

Granted that we can distinguish between ontological and political issues, what exactly does the doctrine of subjective rights (to take a feature of modernity that Taylor would like to rescue from modern epistemology) have to gain by philosophical inquiry into ontological sources of the good? Sandel and MacIntyre contend that the individualist doctrine of subject rights is untrue; the political policies are therefore unfounded, or at least improperly founded. Taylor, perhaps, can render a less harsh judgment and suggest that it is always better to ask ontological questions about higher goods and that there is always some gain to be had in that articulation, not the least of which is the discovery of values which transcend the ordinary busy work of selfhood. Yet once spelled out in detail, especially in terms of his thesis that selfhood is somehow deformed and distracted from its proper office until it strikes an allegiance with a constitutive good, it is exceedingly hard to see how modern notions of subjective rights and autonomy can remain intact.

Sources of the Self is a book to be appreciated at any number of levels. It is bold, picturesque, challenging. My discussion of it on these pages in no way conveys the rich historical detail of Taylor's

²⁰ Ibid., 181. It is worth noting that his blueprint for the political common good could not help but redraw the map of policies. For his understanding of a participatory common good that is inherent, rather than merely convergent, is stronger not only than the "atomist-infected" liberal models he criticizes, but would also seem to be stronger than the Montesquiean model of political virtues he recommends as an alternative to latter-day liberalism. See p. 168.

BOOKS RECEIVED

SUMMARIES AND COMMENTS*

MARK M. HURLEY AND STAFF

AUSTIN, David F. *What's the Meaning of "This"?* Ithaca: Cornell University Press, 1990. \$22.95—Austin's book raises, but does not resolve, a problem for the analysis of belief as a two-termed relation between a believer and a proposition. The argument turns to account a puzzle about beliefs expressed in terms of the demonstratives *this* and *that*—and hence also *I*, *here*, and *now*—to expose a threatened inconsistency in the doctrine of propositions most commonly held among analytic philosophers.

The author begins by arguing that we require individual propositions, such as "This is red," as well as qualitative ones such as "Some things are red," in order to make sense of ordinary beliefs. Briefly, one can believe "that Aristotle was fond of dogs" without believing "that the greatest philosopher of antiquity was fond of dogs" or any other qualitative proposition of the sort.

He then develops an ingeniously constructed example in order to expose the puzzles latent in the idea of a demonstrative proposition. In the "Two Tubes Case," a man named "Smith" is the subject of a psychological experiment designed to test his ability to focus his eyes independently. In the course of this experiment he sees a red spot through each of his eyes and he dubs the two spots *this* and *that*. The two spots are in fact the same, although Smith does not know it. How then can he believe "that this is this" and "that that is that" without at the same time believing "that this is that?" On remarkably many views all three of these propositions turn out to be the same.

With the help of this example, Austin illuminates the strengths and limitations of a wide variety of contemporary analytic accounts of belief. The larger issues at stake in his discussion have to do with the attempt to defeat solipsism by arguing that the existence of an external world is implied by the very nature of our beliefs. Thus Herbert Heidelberger claims that "merely to believe a singular proposition" is enough to get us "outside the circle of our own conceptions" (quoted, p. 135). Austin finds Heidelberger's claim too simple, but

* Books received are acknowledged in this section by a brief resume, report, or criticism. Such acknowledgement does not preclude a more detailed examination in a subsequent Critical Study. From time to time, technical books dealing with such fields as mathematics, physics, anthropology, and the social sciences will be reviewed in this section, if it is thought that they might be of special interest to philosophers.

he retains the hope that the analysis of individual propositions will play an important role in the resolution of such questions.

While Austin tries hard to be clear, readers not familiar with hard-core analytic philosophy will find his book heavy going. Nor is the cause of readability advanced by Austin's use of the artificial pronoun "s/he," which by now has the embarrassing quality of last year's slang.—Philip E. Devine, *Providence College*.

BRUNS, Gerald L. *Heidegger's Language, Truth and Poetry. Estrangements in the Later Writings*. New Haven: Yale University Press, 1989. xxx + 233 pp. \$26.50—Gerald Bruns has written a fine study of the relation of language and poetry in the later Heidegger, whose final phase lies beyond the reach of philosophical comprehension, according to Bruns. Bruns offers a clear, comprehensive, sensitive account of a number of main themes in Heidegger's final view in a discussion patient to a fault and always attentive to the nuances of expression, an application if one will of Heidegger's idea of *Gelassenheit* to Heidegger's own texts. As Bruns sees it, it is folly even to try to follow this stage of Heidegger's thinking, although it must be said that he himself does an outstanding job of doing just what he says it would be foolish even to attempt. According to Bruns, Heidegger is finally a comic thinker, an outsider who supposedly resists integration on behalf of scandal and freedom, even in Bruns's view a philosopher of freedom. In short, Heidegger was someone who strove for authentic thought and stubbornly followed the argument wherever it might lead.

In the "Preface," Bruns describes his book as an effort to speak about Heidegger's view of truth as disclosure and something else as well, what he calls a complex pun that preserves the darkness or otherness of truth, in short, an unspeakable subject. As a consequence, as Bruns is aware, he cannot tell us precisely what his book is about. But he indicates that he wrote it since he holds that most philosophers have no idea of what poetry is and hence cannot comprehend the later Heidegger. His basic intuition is that Cassirer disposed of the copy theory of knowledge [sic] and that the later Heidegger performed the same task for the copy theory of poetry. Poetry, for the later Heidegger, as Bruns understands him, is not about reality, but gives us reality by way of lighting up a world, by entering into *Gelassenheit*. Bruns holds that philosophers, in virtue of who they are, fail to see this point, and hence do not grasp that for Heidegger *Dichten* is a kind of estrangement in which poetry withdraws from *logos* in order to move towards *phusis*.

The first chapter concerns Bruns's view of the quarrel between philosophy and poetry. Understanding Heidegger means translating into more usual terms the Heideggerian view that truth is not a relation to the world but an event, or *Ereignis*, which is no longer even speakable. He touches briefly on Heidegger's Nazism in order to acknowledge Heidegger as the model of the moral failure of philosophy. Bruns

sees Heidegger's silence in remarks from *Being and Time* which finally lead to the later views of poetry and language.

He regards "The Origin of the Work of Art," in which language is not a central concern, as central to the later Heidegger. For the later Heidegger, poetry is neither foundational nor originary, but rather a renunciation of the power of the word in order to let something be. Bruns maintains that the introduction of the notion of language as saying (*Sage*) at the end of the essay points to the view of the poet as the one who names, which is developed in the Hölderlin essays, or *alētheia*, and the other view, worked out in *Unterwegs zur Sprache*, where poetry has to do with the withdrawal of language, the *lēthē* of the *alētheia*, the possibility of a "thinking experience with language."

In a discussion of hermeneutics, Bruns points out that Heidegger's thought has no method, since it is a renunciation of exegesis. His thesis is that for Heidegger a text is like a Hericlitean fragment or enigma which has no correct solution. The corollary is that Heidegger's interpretations have no end in view. He applies this view to the dark concept of the fourfold which, as he says, lets the world *world*. His point is that in this way one surpasses the subject/object distinction in order to let things occur. He sees Heidegger as attempting to dispense with existence contained in the copula in claims that the thing things, the world worlds, and so forth.

Bruns develops further features of Heidegger's odd view of language in a trio of chapters. The truth of a poem does not lie in its correspondence to anything at all, but obscurely in the situation in which we find ourselves with language. The task of thinking is to listen to what is granted, not to question. Bruns helpfully points out that Heidegger does not offer a theory of being as accessible through language and denies that poetry can be understood in the form of a theory. The result is to separate *logos* and *phusis*. The rejection of so-called calculative thinking means that there is no single path in Heidegger's thought, which is characterized by a multiplicity of paths leading in all directions. Even metaphor must be rejected as a metaphysical means of closure by a thought wedded to openness. Heidegger's later thought is not reasoning of any sort, since it goes beyond statements and concepts in the concern with the event (*Ereignis*). An *Ereignis* is both a way of appropriation, an event in which we are caught up (as distinguished from the more usual German *Aneignung*), and, according to Bruns, a complex pun.

Bruns develops this point in his conclusion about "The Dark Comic World of Martin Heidegger." He insightfully counterposes *technē*, or the form of knowledge seeking mastery over things, to poetry, which steps back by surrendering control of any kind in order to let go. Poetry must resist the reduction of the other to the same, in order to let appear that which conceals itself. What he sees as comic is the uncontainability of such thinking, its refusal of any kind of control, its nearness to poetry, its acceptance of skepticism.

This is an excellent discussion which illuminates Heidegger's later thought, including some of the darker recesses of a largely opaque view. My problem with this book is the way that it, following Heidegger, announces repeatedly that from the perspective of what it

rejects the ideas it describes are nonsensical or worse. The evident strategic value of the concession lies in the protection it acquires against any critical evaluation; but it is contradicted by the fine manner in which Bruns manages to make perfect sense. Bruns approvingly cites Gadamer's view that there is no possible philosophical justification at all for the later Heidegger while he eschews any argument of his own. To ask him to provide such an argument would be to require that he surpass his present intention of explaining Heidegger's later thought to write a different kind of work; but to concede in advance that none is possible is a damaging admission about this thought. It means, as Bruns points out, that we can know it only gnostically, and as he does not point out, that it falls under the heading of myth.—Tom Rockmore, *Duquesne University*.

CLEARY, John J. *Aristotle on the Many Senses of Priority*. Carbondale: Southern Illinois University Press, 1988. xiv + 131 pp. \$15.95—A study of Aristotle's use of the "prior" and the "posterior" is most welcome, since it is likely to shed some light on his position with regard to Platonism. *Nicomachean Ethics* 1096a17–19 intimates that in Plato's view the pair "prior and posterior" belongs to the world of becoming and mutually dependent things. Cleary believes that its use by Aristotle is closely related to the latter's philosophical development. He hopes to discover, in the course of his study, the original set of circumstances which made Aristotle embark upon his theory of these terms. To this effect Cleary examines the main texts of the Aristotelian corpus in which they occur.

In his earlier works Aristotle accepted that the genus is naturally prior to the species in an absolute sense (p. 19). This Platonic influence also is evident, Cleary argues, in the treatment of priority in the *Categories*. In his analysis of *Metaphysics* 5.11 Cleary discusses the reference points for the five senses in which the terms are used. He finds special difficulties with regard to the reference points for time (with reason) and potency. Cleary believes that Aristotle is wrong in asserting that, in respect of actuality, the whole is prior to its parts, since "matter can be without form" (p. 49), but this criticism is a serious misunderstanding abhorrent to any Aristotelian.

In chapter 4 Cleary interprets the hint Aristotle gives at the end of book 7 of the *Metaphysics* that all senses of priority can be reduced to one, viz., that actuality is prior to potency. The last chapter of the book attempts "to get the priorities right." Cleary assumes that the distinctions between "prior" and "posterior" underlie some of Aristotle's metaphysical positions. However, it is better to say that the frequent recourse to this pair of terms must be explained by (1) the search for causes and principles and (2) the need to lay bare the principles and beginning in the different types of knowledge.

This book is a valuable study of the subject; his wording is careful and clear. Cleary's treatment of this subject shows that in order to

understand the various themes of Aristotle's philosophy, reference to the whole of the latter's philosophy is essential.—Leo J. Elders, *Rolduc, The Netherlands*.

CONWAY, Gertrude. *Wittgenstein on Foundations*. Atlantic Highlands, N.J.: Humanities Press, 1989. x + 184 pp. \$45.00—Conway attempts in this book to explain what a form of life is in Wittgenstein's sense. She assigns such forms considerable importance. Her thesis is that Wittgenstein remained traditional in centrally seeking "foundations"; he is *untraditional* precisely in finding those "foundations" in forms of life, rather than in a world as it is anyway, or, as Kant did, in individual psychology or its possibility.

Conway is tolerably clear as to some things a form of life is *not*: it is not a language game (*pace* S. S. Hilmy and Kai Nielsen); it is not (simply) "a biological or organic phenomenon" (*pace* J. F. M. Hunter); it is not, or only superficially, a "way of living" of a people or group (*pace* D. Z. Phillips, Peter Winch, and Norman Malcolm); it is not *quite* just "conventions which are 'fixed' . . . by the nature of human life" (*pace* Stanley Cavell and Hannah Pitkin), though Conway allows that this is getting quite close. Vagueness reigns where Conway says what forms of life *are*, except that they are constituted, for her, both by universal factors (the natural reactions of mankind plus ubiquitous environment) and by culturally variable factors. She makes the point that Wittgenstein sometimes considers alternative life forms (like Martians) to exhibit something essential about our own, where that is easily overlooked through extreme intimacy with it. To take such alternatives too seriously, she holds, is to lapse into nonsense.

"Foundation" leads several philosophical lives. Philosophers have sought foundations of *knowledge*: things one couldn't be wrong about, which provide justification for what one *could* be wrong about. They have also sought foundations for truth, or "reality": a basic level of fact out of which any *genuine* fact must be constituted. It is not clear what Conway means by "foundations"; I suspect her interest is primarily in the latter. She also speaks of foundations in connection with "values, choices and actions." Interest in foundations in either of these senses would be, in my view, radically inconsistent with the most fundamental aspects of Wittgenstein's later philosophy. Conway, I think, misunderstands Wittgenstein's images of bedrock and spades being turned. Under the influence of his riverbed imagery (*On Certainty* §§96–9), she does allow that bedrock need not be absolute.

Conway ends with a discussion of what philosophy might aim at. She finds that Wittgenstein confines philosophy too narrowly. *Inter alia*, the human urge to metaphysics (*Metaphysikdrang*, as she might put it) is irrepressible. Further, we plain folk need guidance on reforming our linguistic and other practices. (Here she appeals to frighteningly elitist, even *übermenschlich*, bits of Jaspers). She recognizes that Wittgenstein thinks such guidance possible, without the

province of philosophy, but she disagrees about the province. Discussing what philosophy might be, in lieu of doing it, is a treacherous occupation. (Wittgenstein discussed the nature of philosophy, but usually as running comment on philosophy in progress.)

Conway makes frequent reference to Qashqai women as exemplifying a different form of life than that of, say, American women. She never provides specifics as to who the Qashqai are or how they differ. This typifies the level of detail at which her whole discussion is conducted. At her grand level of abstraction, she, as do others, finds Wittgenstein to be quite like Heidegger, and sometimes like Dewey and Husserl. Then again, at *some* level of abstraction, who isn't?—Charles Travis, *Illinois State University*.

DILLON, M. C. *Merleau-Ponty's Ontology*. Studies in Phenomenology and Existential Philosophy. Bloomington: Indiana University Press, 1988. xiii + 286 pp. \$35.00—M. C. Dillon claims that the paramount task facing contemporary philosophers is to solve the problems stemming from ontological dualism. Merleau-Ponty's work is pivotal and indispensable in developing the requisite new phenomenological ontology. Dillon provides a lucid interpretive analysis both of Merleau-Ponty's position and of the context within which the present problematic can be understood and the radicality of Merleau-Ponty's response appreciated. He argues that Merleau-Ponty's ontology offers an alternative to the negative logical and historical consequences of dualism in western thought.

Dillon begins with a consideration of the epistemological-ontological problematic raised by Meno's argument regarding the validity of philosophical inquiry. The Cartesian answer to that problematic has dominated modern philosophy. Consequently, Dillon goes on to explicate Descartes' position and Merleau-Ponty's critique of Cartesian dualism in both its old and newer versions. Dillon distinguishes the pursuit of truth from that of certainty, and explains how commitment to the latter prompted Descartes to adopt ontological assumptions at variance with his project. Intellectualism and empiricism employ the same reductionism and similarly bifurcate reality into mutually exclusive, immanent versus transcendent, worlds. These neo-Cartesian philosophies, therefore, likewise subvert themselves in seeking certainty. Both succumb to Meno's destructive either/or argument. Given their ontological presuppositions, neither can mediate between knower and known. Each stance is inadequate, inconsistent, and tends to collapse into the other; yet their unification is impossible. Dillon argues that Merleau-Ponty's ontology provides the necessary third alternative to move western thought beyond this impasse.

Dillon contends that Merleau-Ponty's ontology evolves, but that its central thesis of the ontological primacy of phenomena remains constant throughout his work. Dillon carefully contextualizes this ontology and traces its evolution. He suggests that the ontology evolves

in confronting the problems produced by the paradox of immanence and transcendence generated by dualistic thinking.

Dillon explicates the Gestalt-theoretical principles and the Husserlian notions which Merleau-Ponty appropriates in his search for a primordial realm underlying the traditional polarizations. He discusses the difficulties encountered in moving from an inherited philosophical framework to the articulation of a radically new ontology, and the challenges Merleau-Ponty faces in accounting for the phenomena of reflexivity, privacy, and the projection and institution of meaning. Dillon argues that Merleau-Ponty's account of these phenomena vindicates his ontology. The lived body defies the traditional categorizations and calls for an understanding of flesh as an elemental reality characterized by reversibility. Dillon provides an excellent interpretive analysis of this notoriously difficult reversibility thesis and discusses its implications. Since the reversibility thesis intersects Merleau-Ponty's philosophy of language, Dillon also presents an extended account of the latter. He shows how that philosophy moves from a reliance on the notion of *Fundierung* to a conception oriented around reversibility and intertwining. Dillon maintains that while Merleau-Ponty's philosophy of language is foundational, it overcomes the onto-theo-logical difficulties of traditional metaphysics through a truly radical critique of the transcendental philosophy sustaining that metaphysics. Dillon contends that the contemporary "post-hermeneutic" skeptics, by contrast, are mired in dogmatic mystification of the origin of language.

Dillon's book is clear, comprehensive, readable, and intellectually stimulating. Though somewhat marred by its silence regarding feminist critiques of Merleau-Ponty's position and its cursory treatment of "post-hermeneutic" thinkers, this book constitutes a remarkable achievement.—Monika Langer, *University of Victoria*.

DRUART, Therese-Anne, ed. *Arabic Philosophy and the West. Continuity and Interaction*. Washington: Center for Contemporary Arab Studies, 1988. ix + 163 pp. Paper, \$12.00—This collection results from a colloquium of the same title presented at Georgetown University in 1982. Its diversity of approaches and concerns reflects the complicated interaction between the two philosophical traditions.

In the first paper, Majid Fakhry clearly and deliberately sets out the classical encounter between Greek philosophy and the Muslim concern with linguistics in jurisprudence (*fiqh*), interpretation (*ta'wil*), analogy (*qiyas*), and scholasticism (*kalam*). One strand of this interchange centers on the Arabic development of Aristotelian, Platonic, and Stoic notions of the soul. These found their way into European scholasticism and thence helped determine the framework through which Descartes inaugurated modern philosophy.

Therese-Anne Druart compares Descartes and Avicenna over their handling of the soul and its relation to body. Both philosophers claim

that "there is a specific relation of the soul to its own body that distinguishes the latter from any other body or external object" (p. 29). In exploring this issue, Druart examines Descartes' methodological doubt, stressing the moves by which we "awaken our consciousness to the innate idea of the self" (p. 31), and compares this with Avicenna's "Flying Man" or "Man in the Void" arguments, which occur in his commentary on *De Anima* 1.1 and 5.7. Avicenna proceeds by awakening a subject's consciousness of his soul, maintaining that the soul is not spatial, extended, or material, and that affirmation of our own existence does not need reference to that matter. Beyond the similarities with Descartes that these claims evoke, Avicenna also holds that "the perception of the unity and continuity of consciousness of the self grounds our usage of language" (p. 33). From these points Druart develops the comparison to show how Avicenna's strategy avoids some of Descartes' problems in arguing for the soul and its identity.

In addition to these papers, the collection contains commentaries by Fadlou Shehadi and Thomas P. McTighe. In responding to Druart, McTighe emphasizes that Avicenna wanted to respect Platonic and Aristotelian influences. He thought of the soul as both a spiritual substance and the form of the body and, consequently, had to explain the relation between these two conceptions. By contrast, as Descartes rejected the form-matter relation, McTighe proposes, his theory claims a greater coherence. Moreover, Avicenna holds that the unity and continuity of consciousness are given. Yet it is not clear how that can be, for this continuity does not appear to us in our phenomenal experience. Here Descartes argues for God, as a continuing existent, to justify the claim to continuity. He does not, then, merely assume continuity as Avicenna does. McTighe also demurs from Druart's assertion that Descartes takes the union of soul and body for granted. He prefers to see Descartes as "situat[ing] the union": according to this reading Descartes is arguing for the relation between our phenomenal experience and metaphysical explanation.

The largest part of this collection is made up of a bibliographical essay by Charles Butterworth. It covers the years up to 1983, with an appendix that brings the listing up to 1987. The essay is undoubtedly very useful to anyone interested in Islamic philosophy. I do not agree with its wholesale rejection of work by Oliver Leaman and F. W. Zimmerman. Critics have too easily conflated the philosophical content of Leaman's work with other aspects and unfortunately dismissed the former in questioning the latter. Be that as it may, Butterworth's excellent collection will surely serve as an important source for years to come. No doubt it will need updating—already Ian Netton's *Allah Transcendent, Studies in the Structure and Semiotics of Islamic Philosophy, Theology and Cosmology* (London: Routledge, 1989) and Mohammed Arkoun's *Rethinking Islam Today* (Occasional Papers Series, Washington: Center for Contemporary Arab Studies, Georgetown University, 1987) are leading candidates for this list. Yet that need is a happy one: it shows the productive state of Islamic philosophy in the West. For bringing about that state, people like Majid Fakhry, Charles Butterworth, and Therese-Anne Druart deserve sustained

applause where they have worked to increase our understanding of philosophical issues and strengths in Islam.—Salim Kemal, *The Pennsylvania State University*.

ERSKINE, Andrew. *The Hellenistic Stoa. Political Thought and Action*. Ithaca: Cornell University Press, 1990. xl + 233 pp. \$37.50—In the first chapter, Erskine provides an interesting and exhaustive analysis of the evidence for Zeno's *Politeia*. He rejects statements to the effect that Zeno wrote the *Politeia* in his early days when he was influenced by the Cynics as the invention of the Stoics of the first century B. C., who were embarrassed by its contents. Two of the stipulations in the *Politeia*, that there should be no coinage and no private property, he explains in terms of the economic and political instability in fourth-century Greece (p. 37). He argues that "the ideal society of Zeno's *Politeia* contained only the wise" (p. 20). There is no reason to suppose, however, that this society, however ideal, could ensure that every child would become wise. The most it could claim was that every child would become an adult who was making progress towards virtue. I can see no reason why the presence of those actively seeking virtue would disturb the *homonoia* of the ideal city.

In the second chapter, "Slavery and Society," Erskine discusses the three kinds of slavery: moral slavery; slavery which is based on subordination; and slavery which is based on possession and subordination. Zeno wrote that the bad were all foes, enemies, slaves, and aliens to each other. Erskine argues that the word "slaves" does not refer to moral slavery, but to slavery as subordination. He concludes from this that Zeno denounced contemporary society because it was "made up of unequal relationships in which men use those subordinate to them to serve their own interests" (p. 53).

Zeno's rejection of subordination, Erskine argues, naturally led him to take a prodemocratic stance. He emphasizes anecdotes which place him in the company of two anti-Macedonians, Chremonides and Demochares (p. 89). Erskine believes that the use of the slogan, freedom and *homonoia*, in the Chremonidean decree shows Stoic influence (p. 95). And yet he does not regard the slogan as a Stoic manifesto, and has drawn attention earlier to the use of freedom and *homonoia* by the orator Lysias at the beginning of the fourth century (p. 62).

In chapter five, a comparison of the Aristotelian and Stoic definitions of justice, with an analysis of the technical terms used, is particularly useful. Chapter six, "The Spartan Revolution," is a study of the reforms effected by Agis IV and Cleomenes III, who ruled at Sparta between 244 and 222 B. C., and the possible influence of the Stoic philosopher, Sphaerus.

In chapter seven, "The Gracchi," we have an interesting analysis of passages in the third book of Cicero's *De Officiis*, which deal with the possible conflict between morality and expediency (p. 153). Erskine draws attention to "Diogenes (of Babylon's) accusation that

Antipater (of Tarsus') position would undermine property rights" (*De Off.* 3.53), and suggests that "this is a response to the Stoic involvement in the Spartan revolution" (p. 154). He concludes that "the Stoic arguments which had developed as a reaction to the Spartan revolution were adopted in Rome to counteract the Gracchan propaganda" (p. 161). Since, however, Erskine believes that Tiberius Gracchus himself "was using ideas derived from Stoicism to justify his position," he assumes that Stoic arguments were used on both sides of the debate (p. 161).

The final chapter, "The Justification of the Roman Empire," contains some very interesting material, and it demonstrates clearly how much the Roman Stoics were prepared to compromise to secure their position at Rome.

This book combines exceptional skill in the handling of the historical evidence with philosophical insight. It takes us a long step forward in our understanding of Stoic political theory.—Margaret E. Reesor, *Queen's University, Kingston, Ontario.*

GAUKROGER, Stephen. *Cartesian Logic: An Essay on Descartes's Conception of Inference*. Oxford: Oxford University Press, 1989. xi + 145 pp. \$35.00—Descartes' conception of facultive inference is of a simple, primitive, unanalyzable, unmediated, unjustifiable "mental operation by which one grasps connections between one's ideas," in contrast to Aristotle's discursive inference consisting in "spelling out and analyzing its steps" (p. 128). Gaukroger shows why Descartes takes Aristotelian syllogistic to be merely presentative of material already known, and thus takes deduction to be only a way of ordering and displaying this knowledge. For Descartes, only synthesis leads to new knowledge. Thus it is a mistake to give an "apriorist and deductivist interpretation of Descartes's method . . . whereby all scientific knowledge is . . . deduced from the *cogito*" (p. 131). One "problem with a purely deductive approach . . . is . . . that . . . first principles take us to every possible world" (p. 109). To settle which account is of the actual world, we must resort to experiment. Also leading to a nondeductive method in science is Descartes' doctrine of God's creation of truths which means that "human knowledge can no longer be modeled in any way on divine knowledge" (p. 69). Descartes' three-part problem-solving method, then, is to pose the problem in quantitative terms, test the solutions experimentally, and incorporate the solution into his system of natural philosophy (pp. 115–116).

Gaukroger argues that Descartes' genius as manifested by dealing "with the systematic relations symbolized in algebraic equations" failed him in that he did not go on to "explore relations between truths simply *qua* truths . . . by abstracting from particular truths" as he had abstracted from "particular numerical solutions to equations" (p. 88). Leibniz sees that "Descartes held in his own work on algebra the key to a profound new understanding of the nature of

deduction" (p. 88). Thus Leibniz builds on Descartes to come to conclusions contrary to his to the effect that "provided one starts from a reasonable store of information, one can survey it and uncover an order in it [that] enables us to go on to discover many new things" (p. 89). Descartes fails to see that the fact that self-evidence does not depend on demonstration does not mean that truth does not.

For Descartes, "the connection between premisses and conclusions is established when we grasp that connection in an unmediated way, and this grasp shows us that the inference is . . . legitimate" (p. 97). Thus Descartes instructs us to try to grasp intuitively all steps of a deductive argument at once. But this is to fail to see that "logic is concerned with the systematic relation between truths" (p. 128). "For Leibniz, . . . the intermediate steps are constitutive of the connection between premisses and conclusion. They tell us what this connection is by indicating what the route is from the one to the other" (p. 97). Gaukroger provides a brilliant illustration of this point by showing that the distinctions Descartes kept clear by writing "225" as " $a^2 + b^2$ " are exactly analogous to those he obscures in deductive reasoning by reducing all steps to one intuitive grasp. Leibniz sees the point, and using Descartes' own algebraic method, advances beyond Descartes by "get[ting] rid of the need to think through each step in a proof by making our transversal of these steps not instantaneous [obscuring them] but mechanical [exhibiting their connections]" (p. 96).

These summary comments do not begin to do justice to the richness of Gaukroger's monograph. It is an exhibition of clarity and distinctness in the history, analysis, and exposition of philosophical origins and influences, problems and solutions.—Richard A. Watson, *Washington University*.

HAMPSHIRE, Stuart. *Innocence and Experience*. Cambridge, Mass.: Harvard University Press, 1989. 195 pp. \$20.00—As soon as we try to philosophize about morality, a tension arises. We are confronted with radically different conceptions of the best human life. Philosophers as dissimilar as Aristotle, Kant, and Bentham have tried to find a principle or a set of principles that could serve as the ground of morality. With such a foundation, it would be possible to adjudicate among these different conceptions and explain why one is better than another, by making reference to the "seamless whole" (p. 135) of human morality. Hampshire argues, persuasively, that this search is doomed to failure, at least if the basic principles are meant to have any substantive content. In particular, the virtues associated with innocence (gentleness or trustfulness, for example), and the virtues associated with experience (such as practical wisdom), are incompatible: a person can't have both kinds at once, and most people achieve only some of only one set at any time in their lives. But if there are no foundational principles, then what is the alternative to complete relativism? A total moral skepticism? Hampshire suggests what

he calls "minimum procedural justice" as a way of balancing competing conceptions of the good life as much as possible, without suggesting that the procedure can resolve all moral disagreements. Across the radical differences, there is one recognition that we all share: "[h]umanity is united in the recognition of the great evils which render life scarcely bearable . . ." (p. 107). Minimum procedural justice, a minimal fairness in negotiation, is required if these great evils are to be avoided. Furthermore, minimum procedural justice is the only concept that can play the role the substantive principles were to play.

What are the consequences of having a procedure rather than a set of substantive principles as the ground of moral discourse? One result is that the risks associated with giving up "morality", as Hampshire conceives of it, are much greater. If an individual gives up her substantive conception of the good, and replaces it with some other conception (because of a conversion experience, say), her life is completely transformed. If individuals give up minimum procedural justice, they risk not having lives at all. To prevent a Nazi-like destruction of all morality (in fact, to talk about morality at all), minimum procedural justice is required. The near-triumph of evil, in the form of Nazism, means we cannot simply discuss substantive conceptions of the good without first being concerned to establish the conditions of any such discussion: namely, minimum procedural justice. "The known successes of the Nazi movement in Germany and elsewhere ought to have destroyed forever a previous innocence in moral philosophy . . . [it is not] sufficient to establish some truths about the great goods for mankind, and then to deduce from these truths the necessary human virtues and vices and the necessary social policies . . . because there is a distinct and prior necessity . . . of basic procedural justice, as a reasonable and arguable restraint upon the natural drive to domination . . ." (p. 77).

Another consequence is that there will be almost infinite diversity in the conceptions of the good life that different people hold. In the first part of chapter 4 Hampshire points out that this diversity is an expression of human individuality—in fact, of human "nature." "[T]he diversity in conceptions of the good is an irreducible diversity . . . because the capacity to develop idiosyncracies of style and of imagination, and to form specific conceptions of the good, is the salient and peculiar capacity of human beings among other animals. This is their nature . . ." (p. 118). In fact, the limitless capacity for human diversity provides "reasons why we ought to cultivate and to express individuality" and "arguments for the value of individuality, alongside the value of procedural justice, as one of two fundamental and invariant elements in the very various conceptions of the good which are defensible" (p. 124). Hampshire's discussion here is one of the best parts of the book, ranging over art, love, and literature.

Finally, making minimum procedural justice the foundation of morality means that there will be irreconcilable differences and conflicts among the various conceptions of the good life. In other words: the procedure does not resolve all possible conflicts in the way a set of substantive principles would. There may even be conflicts that result in the sacrifice of peace, but this emphatically does not mean the

procedure itself is to be sacrificed. Conflicts may arise between what follows from one's substantive view of the good and the demands of minimum procedural justice: in such a situation "you might reasonably decide that [resolution] is morally impossible and that the cost of peaceful coexistence on an agreed and fair basis has been set unacceptably high" (p. 154). But you must not decide this before you have tried to work out your differences using minimum procedural justice: "Injustice, according to the species-wide conception of justice, is the recourse to attempted conquest and domination when conceptions of the good come into conflict, even though fair and equal negotiation is still possible" (p. 154). The differences between conceptions of the good might lead to war. War is an acceptable outcome *if* the parties tried to work out their differences first—using minimum procedural justice—but not if they *start* by trying to dominate their enemies by force. This reasoning is supposed to be relevant to the "Inquisitors," people whose conception of the good includes the requirement to convert, by force if necessary, those who do not share their beliefs. It is not supposed to satisfy someone who is interested in domination for its own sake, who rejects *any* conception of the good. It is addressed only to someone who has *a* conception of the good, which is very different from that contained in the liberal tradition but which is still backed up by arguments.

I have an objection at this point. Clearly, if someone rejects rational discourse entirely, then there is no point in using reason to try to convince him otherwise. But I am left wondering what Hampshire would have to say to someone with a position midway between the Nazi's and the Inquisitor's, as he describes it: someone who felt required to convert others neither merely for the sake of domination, nor because he had arguments he thought supported his conception of the good. For example, a person might think his conception of the good reflected God's will, perhaps because God told him so, and believe it only for that reason. Of course such a person *might* have arguments to support his conception, but he might not. Hampshire's message to the Inquisitors is: "*given* that you both [i.e., the Inquisitor and his opponent] assert an argued basis for your conceptions of justice and for the supporting duties, it is unjust and wrong to refuse to enter into an ordered negotiation about how you might live together with the minimum of harm, on each side, to the way of life which you consider the best" (p. 154, my emphasis). But what if that "*given*" condition is not satisfied, not because the person is evil but because he has a different (perhaps a religious) basis for his conception?

Hampshire objects to Rawls's procedural justice because it is "not narrowly procedural enough" (p. 187) and to political liberalism in general because it "includes a definite, although incomplete, conception of the good which prevails principally among free-thinking liberals in politically sophisticated societies" (p. 188). He thinks that for negotiation to be possible, the opposing parties need respect each other "only as reasonable in negotiation" (p. 188); they need share no particular conception of the good. I can imagine a religious fanatic, as I've described him, having this minimal respect for his opponent: what I'm wondering is whether he is really addressed by what Hampshire

says to the Inquisitors with an *argued* basis for their conception of the good. Even if not, of course, the fanatic may simply represent one of the irreconcilable differences between conceptions of the good—which Hampshire expects will arise in any case. In other words, Hampshire may not need to take this specific case into account, but the fact remains that he does not.

It is difficult in a short review to convey a sense of what a joy this book was to read. Stylistically, it could not be better: Hampshire's writing is at once elegant, rigorous, and imaginative. What he says about the value of individuality is well-illustrated by the book itself: the reader can always sense the man behind the arguments, a man who has had a remarkably full and varied life. Hampshire's reputation ensures that this book will be widely read; it will be widely enjoyed as well.—Deborah E. Kerman, *Howard University*.

HARRIS, Errol E. *The Reality of Time*. Albany, N.Y.: The State University of New York Press, 1989. xii + 204 pp. Cloth, \$39.50; paper, \$12.95—Against critics who range from Husserl and Heidegger to Rorty and Foucault, Harris presents a renewed justification of the importance of systematic metaphysical inquiry along the lines advocated by R. G. Collingwood (as well as by Harris himself in numerous earlier works). Surveying the writings of Augustine, Kant, McTaggart, Husserl, Heidegger, and Adolf Grünbaum, Harris illustrates the importance of such "classical" metaphysical inquiry in coping with the familiar, but still unresolved, canon of conundrums associated with the problem of time.

Harris considers and rejects various arguments by McTaggart, Grünbaum, and Donald Williams which purport to demonstrate the *unreality* of time by revealing either the alleged mind-dependence of temporal passage or the linguistic confusions occasioned by a failure to appreciate the token-reflexive nature of temporal designators. Diversity, change, and the concomitant differentiation and specification of elements in a series entailing becoming, process, and genuine temporal passage, argues Harris, are "indispensable and ineradicable" to any attempt to understand and articulate the nature of actuality. "If time . . . is not real, nothing is" (p. 36).

Temporal differentiation and serial relatedness, however, presuppose in turn a perspective from which such relations can be discerned as sequential members of a self-identical series; that is, each member of a temporal series of events must embody some underlying *nontemporal* principle of order or organization identifying it as a member of this or that series and establishing its relationship with all the other events in its series. Hence, "the reality of time . . . establishes concurrently the reality of a whole which is nontemporal. . . . The progression of changes occurs in time and is the manifestation of a constant and unchanging principle of order, of eternity" (pp. 36, 39).

This dialectic between time and eternity, and between temporal individuation and the necessary organizational sublation of temporal

events into coherent sequences, narratives, or wholes along the lines of what Collingwood once described as a "scale of forms" (*An Essay on Metaphysics*, ch. 3), infuses Harris's discussion of time in remaining chapters devoted to physical time, biological time, psychological time, and finally to historical time.

Harris's treatment of time in physics and cosmology ranges knowledgeably over recent developments in relativity and quantum physics, arguing that physical time is itself the serial unfolding, the dialectical development, and the self-differentiation of the space-time manifold as a structurally organized whole which, in its totality, is eternal and nontemporal. Likewise in biology: the life-history of a living organism consists of a temporal sequence or "scale" of supervenient forms, each subsuming and including the characteristics and contributions of preceding forms in the scale, the whole (the organism itself in its totality) embodying an underlying (and nontemporal) principle of order or organization. As the "physical world" consists of an ascending scale or system of physical systems, so likewise the evolutionary "world" or biosphere consists of a vast organic web of ever more complex and intimately related systems within organic systems. And just as the temporal development of each phenome consists of a temporalized scale of forms exhibiting an underlying genetic pattern, so evolution as a whole consists of a temporalized scale of forms exhibiting an overarching "cosmic principle" of order and organization.

Turning finally to psychology, to subjectivity and narrative, and to the record of individual and social intentionality and rational agency which constitutes human history (notwithstanding the denials of agent-intentionality and transcendent rationality by structuralists and deconstructionists): the same pattern of temporal events, organized into holistic structures exhibiting a non- or "trans"-temporal pattern of organization, is evident. In the end, Harris sublates the whole scope of experience, from physical and biological, through psychological to historical, within a vast developing whole that is akin to Spinoza's God or Nature, set now on its own developmental path toward apocalypse or eschaton after the manner of Teilhard's "Omega."

The author's command of prominent literature in each of these major fields is truly impressive. However, this is not so much a book about time as it is a very lucid account of the overarching systematic metaphysical perspective of its distinguished author, within which temporality is given its own systematic account. In terms of the account given, in fact, the book might just as well have been titled "the *unreality* of time." This is an eloquent summary exposition and defense of an idealistic metaphysical perspective firmly rooted in a venerable tradition, stretching from Plato and Parmenides through Plotinus, Spinoza, Hegel, and Collingwood. While they are honorably mentioned, however, there is really very little of the spirit of Heraclitus, Bergson, Whitehead, or other proponents of radical temporality. Father Parmenides has triumphed over Father Heraclitus, and time, on Harris's account, is little more than Plato's "moving image of eternity."—George R. Lucas, Jr., *Clemson University*.

HINCHMAN, Lewis P. *Hegel's Critique of the Enlightenment*. Tampa: University of South Florida Press, and Gainesville: University of Florida Press, 1984. xvi + 299 pp. \$36.00—Hinchman offers a politically engaged reading of Hegel's philosophy "designed to illuminate those aspects of his thought which seem the most insightful, thought-provoking, and relevant for our time" (p. x). Chapter 1 provides background by rehearsing the issue of the relation between thought and being from Descartes to Schelling. Chapter 2 summarizes Hegel's metaphysics, primarily drawing on the *Logic*. Chapter 3 recounts Hegel's assessment of empiricism. Hinchman suggests that, like Habermas, Hegel criticizes empiricism for having too narrow a cognitive interest, an interest in knowledge for the sake of survival. Hinchman stresses Hegel's main point against psychological, behaviorist, and sociological explanation of individual action, namely that behavior results not only from such explanatory factors, but also from the individual's own responses and choices (p. 91). Chapter 4 turns to Hegel's *Phenomenology of Spirit* (hereafter "*PG*"), specifically, to Hegel's accounts of the demise of Greek ethical life and of the subsequent European realm of culture and faith. Hinchman briefly compares Hegel's analysis of absolute monarchy with those of Filmer and Hobbes (pp. 114ff.), and then turns to Hegel's treatment of "Rameau's Nephew." Chapter 5 treats the *PG*'s analyses of the Enlightenment and the French Revolution. Chapter 6 recounts Hegel's analyses of Kant's "moral world view," conscience, and the romantic "beautiful soul." Chapter 7 begins discussing some philosophical principles of Hegel's *Philosophy of Right* (hereafter "*Rph*"), but quickly turns back to the *PG* in order to discuss mutual recognition as the origin of freedom and how freedom, on Hegel's view, is the basis of rights. Then Hinchman turns to Hegel's discussions in *Rph* of abstract right and morality. Chapter 8 considers Hegel's analysis of ethical life in *Rph*, treating in turn the family, civil society, and the state. The final chapter places Hegel's critique of the Enlightenment in contemporary perspective, stressing the importance of Hegel's attempt to pursue metaphysical, logical, ethical, psychological, social, political, and economic analyses concurrently. Hinchman suggests that modern social science and its phenomenological critics are replaying the struggle Hegel depicted between enlightenment and faith (p. 252) and that Hegel is on Hamilton's side in the debate with Jefferson about the relative roles of an elite bureaucracy and an informed citizenry in a modern state (pp. 258ff.).

Three problems face synoptic treatments of Hegel: there is the danger of misconstruing Hegel's views; compression can lead to obscurity; and obscurity can result from lapsing into Hegel's idiom rather than explaining it. Regrettably, this book suffers from all three. Hinchman mixes summary, paraphrase, and quotation, occasionally offering mild, frequently tentative (e.g., pp. 129–32) analyses. As it progresses, Hinchman's discussion becomes more clear as it becomes more focused and detailed. At best, Hinchman occasionally shows that certain points follow within Hegel's framework (e.g., p. 186), but he doesn't show why Hegel's framework is warranted. Too often Hinchman labels mere statements as arguments (e.g., pp. 49, 57, 62, 68).

These expository problems are compounded by frequent substantive errors. On the basis of his rejection of a "self" Hinchman ascribes to Hume the view that "man's inner life is . . . simply an illusion" (p. 211). Hinchman ascribes to Kant the view that "[p]ure reason, or reason applied beyond the bounds of formal logic [*sic*], is illicit" (p. 16). Hinchman describes the Categorical Imperative as if it is applied without considering the circumstances of action (p. 159) and he allows Kant's early, inadequate, and subsequently revised view in the *Groundwork*, that immoral actions are caused by inclinations and are not free, to stand as Kant's considered view (p. 159).

Hinchman ascribes transcendental idealism to Hegel and he ascribes the justification of Kant's distinction between phenomena and noumena to Kant's doctrine of the transcendental unity of apperception (p. 19). Kant's justification for that distinction lies in the "Transcendental Aesthetic" and indirectly in the first Antinomy. Since Hinchman misses this point, he similarly misses the point of Hegel's repudiation of Kant's arguments for transcendental idealism and he fails to ask what kind of "idealism" Hegel means to defend in its stead. Hinchman cites the "identity philosophy" of *Faith and Knowledge*, apparently unaware of Hegel's rejection of this view in the *PG* and thereafter (pp. 21-2). Hinchman cites a passage from the *Encyclopedia* that is said to reflect the extent to which Hegel retained Fichte's doctrine of the self-production of self-consciousness (pp. 83-4). But the passage in question (§412) in fact reveals Hegel's retention of the point Kant makes in his "Refutation of Idealism" that no one can be self-conscious without distinguishing oneself from the "external" natural world. In Hegel's hands, as in Kant's, this is an *anti-Fichtean* doctrine.

Hinchman is right that Hegel's political philosophy cannot be fully understood apart from his *Logic*, but without clear presentation, Hegel's logical terms offer little help with his political philosophy (e.g., pp. 205-6). Hinchman takes a passage from the Jena manuscripts, in which Hegel asserts that the social whole has ontological priority over the individual members of society, as Hegel's mature view (p. 201). Hegel does contend that individuals are fundamentally social practitioners, but he also argues for a biconditional: there are no social practitioners without social practices, *and conversely*, there are no social practices without social practitioners. This view, if sound, undercuts the issue of which has priority, society or individuals, by undercutting the alleged dichotomy on which it rests. Hinchman's analysis of Hegel's politics is mitigated by failing to appreciate the three distinct senses of "state" in *Rph* (pp. 201, 232): the "state external" (§183), consisting of civil society and the administration of justice, but lacking institutionalized political representation; the "strictly political state" (§§267, 273, 276) or government, specifically including representative institutions; and the state proper, as the whole of an independent, civilly and politically organized country (§§257-259).

In sum, one is better advised to read any of a number of earlier works on these issues, for example, Judith Shklar, *Freedom and Independence*; Raymond Plant, *Hegel*; Bernard Cullen, *Hegel's Social and*

Political Thought; Jonathan Robinson, *Duty and Hypocrisy in Hegel's Phenomenology of Mind*; Gillian Rose, *Hegel Contra Sociology*. None of these found their way into Hinchman's bibliography.—Kenneth R. Westphal, *University of New Hampshire*.

JULIEN, Philippe. *Le retour à Freud de Jacques Lacan. L'application au miroir*. Toulouse: Erès, 1985. 239 pp. n.p.—This book is possibly the first synthetic presentation of the whole of Lacan's theory. It is not just an explanation of Lacanian texts like the now standard text of Muller and Richardson, *Lacan and Language*. Nor is it just a presentation of a central problem like Dor's *Introduction à la lecture de Jacques Lacan*, which uses the graph of desire to introduce the reader to Lacan. Finally, it is more comprehensive than Lemaire's *Jacques Lacan*, where we only get an introduction to the early Lacan, with the exclusion of his doctoral thesis. This book by Julien gives an insight into the *oeuvre* of Lacan in such a way that nonanalysts can grasp the significance of the Lacanian project for their own discipline.

The survey of Lacan's intellectual *oeuvre* starts with the study of his doctoral thesis. Here Lacan tries to understand the case of Aimée. His conclusion diametrically contradicted the contemporaneous psychiatric understanding of that case. He leaves behind biological and chemical explanations and puts forward the thesis that "psychosis is essentially a disease of the mind related to a lack in psychic synthesis" (p. 29). Lacan argues that whereas a normal personality unifies, the psychotic paranoiac does the opposite: he divides, he introduces a note of discord (p. 29). Aimée knifed and wounded Ms. Z., one of the most acclaimed actresses in Paris, when the latter was about to enter the theatre for a performance (p. 30). Lacan discovers in Aimée two hallucinations. First, she claims being persecuted. She sees evil, not within herself but around her (p. 30). This allows Aimée to assign to herself a mission: eliminate evil. But that is precisely the reason why others persecute her, according to Aimée. The form of her hallucination of persecution leads to the second hallucination: grandeur. Lacan discovers that Aimée projects the intent to persecute her to women of higher social class (actresses, writers) who possess characteristics she desires. Aimée has actually written two novels that were well received in literary circles. Aimée identifies with those women, but for the purpose of opposing them: she thinks that they corrupt society and that she needs to oppose them in order to make the world better.

Having interpreted the case of Aimée, Lacan wants to explain her psychodynamics. For that purpose he turns to Freud, whose observations on masochism turn out to be crucial. The masochist seems to resist all therapeutic efforts. Yet that form of neurosis suddenly disappears if the person enters an unhappy marriage, loses his fortune, or contracts a dangerous organic illness (p. 35). Such a person thus seems to be in need of punishment. Lacan then explains the attempted murder by Aimée as an attempt to claim the right to be punished (p.

34). Lacan finds confirmation of his new theory in the famous and brutal murder by the two sisters Papin. Christine Papin in fact kneels, with a sense of relief, to receive the news that she will be beheaded.

Lacan's new theory evokes a further question: why is there such a need to be punished that Aimée or other paranoiacs opt to commit a crime in order to obtain the right to punishment?

Again Lacan goes back to Freud. Freud notices that the alleged persecutor in the hallucinatory construction is always also a loved person. Freud thus postulates that in the aggressivity of the paranoiac we are dealing with the problem of converting love into hate and hate into love. Introducing a developmental point of view, Freud speculates that all children experience the aggressivity of jealousy. The solution to that problem is the transformation of aggressivity into love. However, that solution may occur in a defective way if the aggressivity is repressed and the love of the sibling is nothing but a love for the self-image projected onto the other. Such a love relation Freud calls "narcissistic." It does not absorb aggressivity, but represses it. As the aggressivity persists the subject is guilty. As the aggressivity persists unconsciously the experience of guilt is unconscious.

For the paranoiac this unconscious problem has an ethical dimension inasmuch as it deals with the unacceptability of aggression. Lacan points to the attempt by Rousseau and even by Aimée to solve their problem by writing. Both made an appeal for moral social reform. Rousseau more or less succeeded in coping with his unconscious guilt in that he did not need to act out his repressed aggressivity in order to deserve the right to punishment. Aimée did not succeed. Lacan suggests that paranoiacs could tolerate their unconscious problem by working within social communities for the moral improvement of society. Such an option would provide an alternative to the need for committing a crime in order to be punished in the hope of mitigating this intolerable guilt.

In the four other parts of his book Julien succeeds in presenting other ideas with equal clarity. He then summarizes his view of Lacan's *oeuvre* as follows: "The teaching of Lacan has been from beginning to end a debate with the imaginary. First, it was posited as such, as tied to the narcissism of the ego; then, the imaginary was submitted to the primacy of the symbolic; finally, it appears again differently when Lacan faces up to the relation between the symbolic and the real" (p. 225). No other book has clarified so well for me the conceptual achievement of Lacan. A translation of the book would transfigure Lacan scholarship in the English-speaking world.—Wilfried Ver Eecke, *Georgetown University*.

LACHTERMAN, David R. *The Ethics of Geometry: A Genealogy of Modernity*. New York and London: Routledge, Chapman and Hall, 1989. xvi + 256. Cloth, \$49.50; paper, \$17.95—The foci of this penetrating study

are Euclid's geometry and Descartes' mathematics. It is a contribution to the history of mathematics, but it is much more, for the differing approaches to mathematics in the ancient and the modern worlds is shown to have deep consequences for both doing and knowing. The investigation is centered on the nature of geometrical construction in ancient and modern mathematics, and, by extension, the crucial importance of construction to the reality and self-understanding of modernity.

What is it to be modern? A large part of the answer is: not to be ancient. We understand the beginning of modernity as coeval with the rejection of antiquity. Yet in the great early modern thinkers antiquity was not rejected outright. To be sure, the ways of ancient and medieval philosophy were abandoned, but if we look to mathematics we find that among sixteenth- and seventeenth-century mathematicians there was a passion for recovering the achievements and methods of their ancient predecessors. The recovery, however, also involved a revision. According to the author, the key to understanding the nature of this revision is a recognition of the new role of construction in the foundations and the practice of mathematics: all proofs are constructed, and construction is the activity of (literally) making a cognition. In contrast, the ancient mathematicians tended to restrict the domain of construction. The proof or demonstration of a theorem did not intrinsically involve construction, which instead was the process of exhibiting individual cases falling under the theorem. Thus ancient mathematicians constructed particular polygons inscribed within particular circles, but the theorems regarding the nature of polygons inscribable in the circle were a matter of recognition of something understood as already existing and thus not in need of (human) construction. In their demonstrations they went so far as to use verbal forms that imply the figure has already been given before the proof begins.

Far from being a peculiarity of Greek usage, this kind of locution reveals a distinctive approach to mathematical things: they are not made, but given as fundamental forms. This approach reflects the *ethos* in which Greek geometry was undertaken. Thus the title of Lachterman's book: whereas it appears that to talk of the ethics of geometry is a confusion of categories, it in fact highlights that geometry is a human practice involving principles and boundaries. The difference between ancient and modern is not simply one of greater or lesser generality but of the kind of practice considered appropriate to mathematics. This difference parallels—and in fact grounds—the modern understanding of human reality as something that is made, and that can be unmade (deconstructed) as well. What takes place in the most abstract human cognitions adumbrates what takes place in human practice in general.

This book is dense, yet rich in rewards. Euclid and Descartes are the main characters, but the author also traces mathematical and philosophical filiations leading from the one to the other and beyond. The whole is informed by extensive and profound scholarship, and the discussion of thinking as activity in Descartes is a subtle but

provocative interpretation of the essential unity of his mathematical, physical, and philosophical work.

The author promises a sequel, *The Sovereignty of Construction*, so we can look forward to an elaboration of his notion of the distinctiveness of modernity and perhaps to an explicit answer to the question of whether there is any essential legitimacy to it; that is, whether the *ethos* of the ancients ought to be binding on all or whether there is something that the moderns recognized (or might yet recognize) that is not resolvable in ancient terms.—Dennis L. Sepper, *University of Dallas*.

LEMAY, J. A. Leo, ed. *Deism, Masonry, and the Enlightenment*. Newark, Del.: University of Delaware Press, 1987. 209 pp. \$32.50—Lemay has brought together nine essays in honor of Alfred Owen Aldridge, a scholar of eighteenth-century English and American literature with a special expertise in the history of ideas. The articles contained in the volume are intended to complement as well as compliment the work done by him in the areas of deism, masonry, and the Enlightenment. Professor Aldridge's contributions to scholarship in those fields include studies on Shaftesbury, Benjamin Franklin, Voltaire, Thomas Paine, and Jonathan Edwards (a complete bibliography is provided on pages 171–80).

If the common aim of this book is to pay tribute to Aldridge, it also becomes clear that there is a common attitude shared by the contributors: each evinces an appreciation for the importance of reading seventeenth- and eighteenth-century texts with subtlety. The authors bring to light the ironical, satirical, and parodical character of writings which otherwise were and are regularly interpreted without due attention to such features. Though it is not possible to examine each of the essays here, I wish at least to note that this quite interesting volume includes the following titles: "Spinoza, Stillingfleet, Prophecy, and 'Enlightenment'," by G. Reedy; J. A. L. Lemay's "The Amerindian in the Early American Enlightenment: Deistic Satire in Robert Beverly's *History of Virginia* (1705)"; M. E. Novak's "Defoe, The Occult, and the Deistic Offensive during the Reign of George I"; D. S. Shields's "Clio Mocks the Masons: Joseph Green's Anti-Masonic Satires"; R. Micklus's "The Secret Fall of Freemasonry in Dr. Alexander Hamilton's *The History of the Tuesday Club*"; C. Mulford's "Radicalism in Joel Barlow's *The Conspiracy of Kings* (1792)"; and the last essay in the volume, "*The Age of Reason* versus *The Age of Revelation*. Two Critics of Tom Paine: David Levi and Elias Boudinot," by R. H. Popkin. Popkin's essay serves as a reminder that the reaction to claims raised on behalf of reason by the claims of revelation can lead to extreme forms of religious fundamentalism. There remain two other essays and I wish to comment on them briefly inasmuch as they address the subject of deism in a way which is noteworthy for the philosophic community.

The first contribution to the volume is R. L. Emerson's "Latitudinarianism and the English Deists." It is a fitting subject with which to begin the book since the author's aim is to clarify the relationship between the emergence of English deism and the latitudinarian movement within Anglicanism. More precisely, Emerson seeks to demonstrate that the frequent identification of latitudinarianism with deism is incorrect (esp. pp. 31ff.). The confusion of the two, he argues, results from a number of apparent affinities between the two schools of thought. For example, common to both movements was an acceptance of the use of reason as a principal arbiter in matters of theological belief and doctrine (pp. 21-3). Moreover, latitudinarians and deists acknowledged the relation between religious belief and civic morality. But whereas "the deistic controversy was about the shape, size, and character of the intellectual world and how one was to know it," the world of the latitudinarians was "more than moral and rational . . . it remained committed to a traditional Anglicanism" (p. 31). Part of the solution to the problem of the relationship between the deists and latitudinarians proposed by Emerson would be a return to a "simple analytical definition of deism" which concentrated on the epistemological foundations for the deists' religious beliefs (p. 44 and cf. pp. 25-8). The consequence of such an approach, the author suggests, would be a clearer grasp of what views deists and Anglicans shared as well as the differences between them. And it would confirm that "liberal Anglicans and deists were farther apart than most recent commentators have appreciated" (p. 45).

The third article in the work is "Deism, Immortality, and the Art of Theological Lying" by David Berman, and I think it is the most intriguing contribution. The question raised by the author concerns the extent to which thinkers such as Charles Blount, John Toland, Anthony Collins, Matthew Tindal—who are generally regarded as principal British deists—and others practice "the art of theological lying" (p. 61). Rather than simply providing a definition of theological lying, Berman gives examples of "the art" through a close textual analysis of writings where its practice is demonstrable. Under the inclusive name—"the art of theological lying"—Berman refers to a complex phenomenon which has been described by its practitioners and their opponents as "the exoteric and esoteric distinction," the "double doctrine," "defensive raillery," "irony," "secret insinuation," and dissembling, dissimulation, or sneering (p. 62). While the author's illustrations of "the art" are limited to writings which address the doctrine of immortality, he indicates that advocates or practitioners of "the art" also included Shaftesbury, Charles Gildon, Locke, and Hume. One very important aspect of Berman's thesis is his account of the constitutive purposes of "the art." Following the views of Shaftesbury, Toland, and Gildon, he acknowledges two components: (1) the literal meaning of the composition, used to deceive the vulgar, and protect the writer and "tender" reader—this, he says, may be called "defensive raillery"; and (2) the esoteric message which was to be communicated to other freethinkers but which also might be detected by orthodox clerical enemies (p. 72). To those components, however, Dr. Berman adds a third: insinuation, which also might be

called "offensive raillery" (p. 72). The purpose of insinuation is to suggest "gently and covertly" the esoteric (and radical) message to some of those ignorant of it. Through the third component, one sees a clearer motive for theological lying. It was not simply for protecting oneself from censure or harm; presumably someone suspected of heterodoxy might feel obliged to write a tract which contained professions of orthodox views. Nor was "the art" employed simply to communicate radical views to those already sympathetic or familiar with them; though Berman does suggest that some practitioners of "the art" might have taken a delight in angering orthodox clerics who had detected their esoteric messages (p. 72). A principal motive for the use of "the art" would have been the esoteric communication of certain unpublishable doctrines to those with sufficient capacity and interest to consider them. With regard to the issue of immortality, Berman concludes that Collins, Toland, Blount, and Tindal were actually mortalists (p. 76) and that fact leads him to a most crucial observation: "If mortalism is proved or assumed, then one has a plausible *ad hominem* argument for atheism. . . . Once mortalism is accepted, atheism seems to follow" (p. 77). Given the mortalism of the major English deists, Berman concludes that they were not deists at all; they were atheists. Rather than confronting a shallow, superficial deism (as Leslie Stephen maintains) in the writings of thinkers such as Collins, Toland, Tindal, and Blount, Berman suggests that we are dealing with a deep, covert atheism; indeed, "the history of deism," he asserts, "may turn out to be more like the history of covert atheism" (p. 77).

Since Emerson's essay on the differences between latitudinarianism and deism focuses on the same authors treated by Berman (*viz.*, Toland, Blount, Collins, and Tindal), it seems quite reasonable to conclude that the confusion of latitudinarianism with deism may result from those putative deists' practice of "the art of theological lying." And hence the difference between the two movements is greater than many have ever suspected.—Paul J. Bagley, *Loyola College*.

LOHMAR, Dieter. *Phänomenologie der Mathematik: Elemente einer phänomenologischen Aufklärung der mathematischen Erkenntnis nach Husserl*. Phaenomenologica, vol. 114. Dordrecht, The Netherlands: Kluwer Academic Publishers, 1989. viii + 244 pp. \$84.00—The goal of this study is to use Husserl's phenomenological method to clarify the epistemic achievement of modern mathematics. It is not primarily an examination of Husserl's opinions on specific questions in the philosophy of mathematics, many of which were formulated in his early, pre-phenomenological works. Rather, Lohmar takes the methodological ideas presented in Husserl's mature works, particularly *Formal and Transcendental Logic* and *Experience and Judgment*, as a point of departure for his own examination of a number of important questions.

Husserl's characteristic philosophical move is to focus attention not just on the objects of concern to the practicing scientist, but on the evidence which underlies the scientist's achievement, on the manner in which the objects are intended and given. This line of inquiry led him in the *Logical Investigations* to the notion of "categorical intuition," which Lohmar rightly sees as the fundamental concept in Husserl's philosophy of knowledge. In categorical intuition, what come to "self-givenness" are not just sensuous objects, but higher-order, "categorical" objects like facts, sets, and numbers, for which sensuous objects are merely the ingredients. Husserl's detailed analyses show that categorical objects can be meant emptily or given in an intuitively "fulfilled" manner, just as sensuous objects can be.

But the phenomenological conception of knowledge leads to difficult questions when we turn to consider modern mathematics. For during the course of the nineteenth century, mathematicians deliberately abandoned intuition in favor of purely formal techniques. With the emergence of non-Euclidean geometry, the expansion of the number system into the imaginary, and the application of "algebraic" methods to logic—developments which Lohmar describes in some detail—mathematics underwent a profound transformation. No longer a "science of measure and number," it became a formalized discipline concerned primarily with the elaboration of axiomatic systems. But how then can this formal mathematics, which expressly excludes all appeal to intuition, be understood phenomenologically as a branch of knowledge?

According to Lohmar, we can answer this question only if we develop a suitably broad understanding of categorical intuition. Most interpreters, he contends, have been misled by Husserl's analysis in the first edition of the *Logical Investigations*, which makes the sensuous presence of the founding objects an essential component of categorical intuition (pp. 51–2). But on Lohmar's view, Husserl later retracted this along with other details of his early study. What is really essential to categorical intuition in general is not the sensuous presence of the objects meant, but simply a passively given "unity of coincidence" (*Deckungseinheit*) between two intentions directed at the same object (pp. 47–50).

Lohmar argues that this broadened interpretation of categorical intuition allows us to understand how constructing proofs within an axiom system can be a form of knowledge. For though we set up axioms "emptily," without regard for anything that could be given in sensuous intuition, we can nonetheless experience a certain coincidence of meanings, a kind of intentional fulfillment, even while remaining within the formal system. We do so, for example, when we prove, strictly on the basis of the definitions and axioms of elementary arithmetic, that the symbolic expressions " $3 + 2$ " and " 5 " are equivalent (pp. 107–111). As we distinctly articulate the meanings of the two expressions, our original sense of disparity or conflict gives way to the insight that they in fact mean the same number. Such experiences of coincidence, or of what Husserl himself called "the evidence of distinctness," are what convince Lohmar that "proving has all the characteristics of knowing" (p. 110).

Having interpreted the mathematician's achievement in terms of categorial intuition, Lohmar goes on to provide phenomenological answers to questions about the nature of mathematics, the meaning of mathematical existence, and the validity of mathematical assertions. The book also examines such topics as the act of counting, the ideal objectivity of numbers, and idealizing presuppositions in logic and mathematics. In general Lohmar's study is illuminating both as an interpretation of Husserl and as an extension of Husserlian phenomenology. It should serve to demonstrate that phenomenology can be considered a viable alternative to other, more widely known approaches in the philosophy of mathematics.—J. Philip Miller, *Upper Montclair, New Jersey*.

LUCAS, Jr., George. *The Rehabilitation of Whitehead*. Albany, N.Y.: State University of New York Press, 1989. xiv + 261 pp. Cloth, \$44.50; paper, \$14.95—Subtitled "An Analytic and Historical Assessment of Process Philosophy," this book achieves a number of important goals. First, it situates Whitehead within the mainstream of philosophical thought in this century. Second, it demonstrates what Whitehead did and did not borrow from the tradition. Third, it provides a most useful update of recent process thought and its significance for current philosophical debate.

Lucas's work is a definitive reassessment of the historical roots of Whitehead's philosophy. Too often, Whitehead is regarded as some exotic dropped out of the sky *sans* context or concrete situation. What is shown here is that Whitehead was forcefully engaged in the major debates of his time. His thought evolved as a series of engaged responses to the debates over "Critical Realism," Russell's varying formulations of empiricism, and the consequences of quantum physics for modern philosophy. His increasingly systematic and comprehensive works were attempts to respond in the most constructive way possible to genuine crises in modern thought. Though he attacked the tradition for its simplifications and abuses, he was also its champion. Speculative thought was for him an empirical adventure, not a muddle-headed retreat into generalities.

Whitehead is most noted for the invention, elaboration, and categorial organization of process as the meaning of reality. At the heart of that vision is a concept of creativity as the ultimate meaning of all temporal passage. It is this central message that his adherents have developed into a school of thought. It is therefore most important to grasp Lucas's finding that Whitehead was little influenced by the evolutionary cosmologies of the late nineteenth and early twentieth century. True enough, the work of Bergson, Alexander, and others was part of his intellectual ambience. Far more important, however, were the novel gains in mathematical physics. Thus Whitehead's cosmology was, among other things, intended to provide a philosophically sound framework for the emergence of modern physics and not

simply a justification of varieties of evolutionary idealism. His temporal epochalism and doctrine of prehensions are not arbitrary ideas but deliberate approaches to resolving difficulties in the field of quantum physics. This type of scholarship is important because it relieves Whitehead of the burden of an undeserved romanticism in regard to human progress and decay. Equally significant, it shows the conceptual power and continuing relevance of Whitehead's systematic categories.

Not all of Whitehead's thought was so successful. It seems that along with a number of British contemporaries he thoroughly misunderstood the contributions of Kant and Hegel, thereby depriving himself and his readers of the depth and nuances of these thinkers. This aversion to Idealism prevented a useful appropriation of Kant's doctrine of experience and Hegel's concept of nature.

Lucas concludes his study with a presentation of recent developments in process thought. He shows Whitehead's continuing importance for work in the logic of scientific discovery, the philosophy of nature, metaphysics, epistemology, and theology. Thinkers as diverse as Bohm and Prigogine, Neville and Cobb continue to draw upon a Whiteheadian vision of the ultimate traits that guide experience. What Lucas has so importantly done is shown the historical rootedness of this thinker, his engagement with the great thinkers of the day (especially Russell), and his continuing significance for the present age.

What is most remarkable in this work is the balanced way in which it weaves together the diverse strands of thought that dot the contemporary intellectual landscape. Analytic, Continental, and American philosophy all find appropriate mention in this fine synthesis. It convincingly demonstrates beyond doubt the central place that Whitehead earned and continues to deserve in modern thought. This book is required reading for all those committed to the tradition of intellectual responsibility. It rehabilitates in an authoritative manner from an analytic and historical perspective a great thinker too long forgotten.—Joseph Grange, *University of Southern Maine*.

O'MEARA, J. J. *Eriugena*. Oxford: Clarendon Press, 1988. viii + 237 pp. \$65.00—This is an informative book dealing with a little known philosopher, Johannes Scottus Eriugena (*floruit* 850–70 A.D.). In his first chapter O'Meara gives a succinct yet scholarly account of the historical context of Eriugena's writings—ninth-century Ireland and France. In particular O'Meara stresses that in that century there is abundant evidence that the Irish knew Greek and certainly the groundwork of Eriugena's later knowledge of Greek, evidenced in his translation of Pseudo-Dionysius, could have been laid in the Irish monastic schools. Eriugena emerges in history as a liberal arts teacher and theological polemicist, and O'Meara's second and third chapters deal with these aspects of his career. Eriugena engaged in

a theological dispute on the meaning of divine predestination, in which he argued against the view of Gottschalk (who, to a large extent, followed Augustine) that there was a double predestination (towards heaven or hell), and propounded his own radical view that God is identical with predestination (since God's being, knowing, and willing are all one). In other words, all beings tend towards God, they are damned not by God but by their own perverse will.

O'Meara, an Augustinian scholar, is at home in the intricacies of this theological argument. Having discussed Eriugena's achievements as a translator of Pseudo-Dionysius and the Greek Christian Fathers, O'Meara provides three extremely useful chapters summarizing the argument of Eriugena's major dialogue, *On the Division of Nature*. The summary is lucid and a convenient source for those who wish to know what Eriugena meant by the four divisions of nature or the division of all things into being and non-being. In later chapters O'Meara discusses Eriugena's commentaries on the gospels and provides a marvelous translation of Eriugena's Homily, the *Vox Spiritualis*. This translation provides the lay reader access to one of the more popular medieval homilies, a richly imaginative commentary on the prologue to the Gospel of John. In the final chapters O'Meara evaluates Eriugena's contributions as a poet, and attempts to sketch his immediate influence on the tenth to the twelfth centuries.

From the book one gains an insight into the greatest mind of the ninth century and indeed of the early medieval period. Eriugena was a visionary, rarely failing to offer a high-minded intellectualist interpretation of the Neoplatonic Christian cosmology which he accepted and which he recharged with a new creative energy. Eriugena is perhaps the closest the West has to a Plotinus writing in Latin. God, the One, transcends all things and is immanent in all things; God is both being and non-being. God's non-being is due to the fact that he is "beyond all things that are and are not." In elaborating the consequences of this vision Eriugena gives us the first *summa* of the age of scholasticism.—Dermot Moran, *University College, Dublin*.

ORMSBY, Eric L., ed. *Moses Maimonides and His Time*. Studies in Philosophy and the History of Philosophy, vol. 19. Washington, D.C.: The Catholic University of America Press, 1989. vii + 180 pp. Cloth, \$19.95—A recent bibliography of Maimonidean studies in the major scholarly languages (exclusive of Modern Hebrew) lists over 300 items from 1950 to 1986. Almost all of the entries antedate the numerous collective publications honoring the 850th anniversary of Maimonides' birth held in 1985. The present volume is an impressive specimen of this latter genre, being a collection of papers presented at the Catholic University of America (Oct. 13-14, 1985), plus four papers commissioned by the editor.

Before turning to a rapid survey of the contents, let me furnish two pointers for new-comers to this discussion: (1) From his own day to

our own response to Maimonides' *Guide of the Perplexed*, scholarship has been riven by a fundamental and poignant duality: Is the *Guide*, especially when read in concert with his major legal (*halakhic*) works, a philosophical (or homiletic) defense of piety or the deliberate undermining of piety for the sake of the speculative life? Does his work guide us to Jerusalem or Athens? The seemingly ill-starred drama of modernization or secularization, set into motion by Spinoza, among others, echoes and re-echoes the ambivalences of Maimonides' work. (2) The question of Maimonides' "esotericism" is never far from the surface in many of the papers included here. It is important to note that "esotericism" is not an artifact of ideological rancor in twentieth-century American political science and theory, as too many are quick to assume; rather, it is the constant, if always labile, motif of writing and interpretation from the medieval period (see, e.g., the anonymous *Epistle of the Brethren of Purity* in the tenth century), through the early modern period (in, say, Leibniz and Lessing), to as recent an author as F. A. Lange. Protagonists of *différance* and antagonists of so-called "authorial intention" might do well to reconsider the complicités, both cognitive and political, between esotericism and the arts of reading and writing.

The first two contributions, Norman Roth's "The Jews in Spain at the Time of Maimonides" (pp. 1-20) and Mark R. Cohen's "Maimonides' Egypt" (pp. 21-34), are informative historical studies of the two cultural milieus in which Maimonides successively flourished. Roth emphasizes that Rambam always signed himself "Mosheh ha-Sefardi," "Moses the Spaniard," while Cohen synthesizes the research of S. D. Goitein and others into the intellectually less vigorous environment of Maimonides the Cairene.

Both Arthur Hyman ("Demonstrative, Dialectical and Sophistic Arguments in the Philosophy of Moses Maimonides," pp. 51) and Joel Kraemer ("Maimonides on Aristotle and Scientific Method," pp. 53-88) consider the important cognitive role of dialectical syllogisms in Maimonides and the way he shapes his Aristotelian heritage in this matter. They reach similar and quite persuasive conclusions: "... the *Guide* contains physical and metaphysical propositions that can be supported by demonstrations, but there are also others—such as propositions about creation, prophecy and providence—for which only dialectical arguments can be offered" (Hyman, p. 51); "The *Guide* is a dialectical work deliberately directed to an addressee and those like him" (Kraemer, p. 88). Both succeed in erasing the suspicion attached to dialectical argument thanks to the sophisms of the Mutakallimūn. It remains to be asked whether Maimonides, like Aristotle himself, depends on the *endoxa* for something more, namely, access to the indemonstrable principles of the sciences themselves, including, presumably, "divine science." Do Aristotle's assertions about *nous* at the climax of the *Posterior Analytics* circle back to rejoin his claims about endoxal dialectic in the *Topics* (101a25-b4)? If so, what bearing might this have on Maimonides' notion of non-demonstrative apprehension (*idrak 'aqli*)? In terms of the famous parable of the Castle (III, 51), how many can the king's inner sanctum accommodate?

Daniel H. Frank, in "Humility as a Virtue: A Maimonidean Critique of Aristotle's Ethics" (pp. 89–99), makes several controversial claims as he advances towards his conclusions that Maimonides "radically alters the Aristotelian concept of humility. Aristotle's vice becomes Maimonides' outstanding virtue" and "Moses, the *hasid* [pious man] stands revealed as the polar opposite of the Aristotelian *megalopsychos*" (p. 98). The following points should be considered: (1) *Pace* Frank, in the Arabic tradition on which Maimonides depends *megalopsychia* [= *kubr al-nafs*] is demanded of the philosopher-king and thus is the "crown" of the intellectual as well as of the moral virtues. (2) In the *Laws Concerning Character Traits*, cited by Frank (p. 89), Maimonides' Hebrew phrase *govah lāv* [lit. "highness of heart"] suggests a trait of *thymos*, rather than of intellect; in any case, it directly echoes the Biblical phrase *b'govah lāvo* ["for the haughtiness of his heart" 2 Chronicles 32:26]. (Note, too, that the medieval Hebrew translation of Averroes' commentary on *The Republic* has, for the equivalent of *megalopsychia*, *gadol ha-nefesh* / *gadol ha-mahshava* [greatness of soul or of intention].) (3) Most importantly Frank's sense of the polarity between Aristotle and Maimonides tends to cover over the tension within the latter himself between the demands of piety (e.g., humility) and the demands of the speculative life (e.g., *megalopsychia* as construed by al-Farabi, Averroes, *et al.*).

Idit Dobbs-Weinstein's article, "Medieval Biblical Commentary and Philosophical Inquiry as Exemplified in the Thought of Moses Maimonides and St. Thomas Aquinas" (pp. 101–120), is something of a rarity among comparative studies of Maimonides and Aquinas since it looks at their relation in terms, not of negative attributes and the like, but of the precepts and styles of their scriptural exegeses. Moreover, it is unusually and valuably focused on the two commentaries on Job, in the *Guide* III, 22–23, and the *Expositio super Job ad litteram*. Although recognizing some important differences in their conclusions (especially regarding the import of Elihu's speech to Job), she argues for a fundamental affinity between their approaches. "As interpreters, both Maimonides and Aquinas undertake to actualize a shared sphere of meaning by unfolding a multiplicity of intermediate terms between understanding and explanation, the historically specific and the universally true" (p. 110).

Barry S. Kogan ("What Can We Know and When Can We Know It?" Maimonides on the Active Intelligence and Human Cognition," pp. 121–37) assembles a powerful argument concerning Maimonides' noetics, directed in part against the radical conclusions of the late Shlomo Pines's work on the limitations of human knowledge. He argues, first, that Maimonides' understanding of the transaction between the human knower and the Active Intelligence is fundamentally Avicennian (i.e., "conjunction with the Active Intelligence occurs progressively whenever actual knowing occurs," p. 131) and, second, that the fourth and final perfection of being human (*Guide* II, 54) is one that incorporates both the fulfillment of *theoretical* cognition and the achievement of a *practical* way of life in imitation of the divinity (i.e., intellectual apprehension "overflows into conduct and confers benefits

on others," p. 137). Kogan observes that the *Guide* itself is meant to enact this unity of theory and practical generosity. One notes, not necessarily with alarm, that on his reading there is no difference in kind between philosophy and prophecy. (He does not offer here any account of imagination.) Put differently, the perfect human agent, for Kogan, is even less distinguishable from al-Farabi's "first ruler," in whom the functions of philosopher, prince, legislator, and *iman* coincide.

Jerome Gellman ("Freedom and Determinism in Maimonides' Philosophy," pp. 139-50) argues, against Pines and Alexander Altmann, that there is no strict ("ancestral") determinism in the *Guide*, that is, human actions are not the inexorable results of divine will "at the onset of creation" (p. 140). Gellman presents a very plausible reading of *Guide* II, 48, the text on which ascriptions of strict determinism are usually based. According to him, Maimonides distinguishes between the libertarian character of human actions themselves and the divine (i.e., natural?) determinism of the consequences of those actions. "The truly 'secret' doctrine of II, 48, then, is this: there is no divine initiation or direction of history" (p. 150). One would very much like to see Gellman's interpretation of the notion of "divine ruse" or "wily graciousness" (*talattuf*) and of its relation to the accommodation of particular commandments to the 'history' of human nature.

William Dunphy ("Maimonides' Not-So-Secret Position on Creation," pp. 151-72), extending his earlier work on Maimonides and Aquinas, tries to show that there is nothing hidden or deliberately self-contradictory in Maimonides' account of creation, *once* one recognizes, as Aquinas did, that the thesis of creation *ex nihilo* must be carefully disengaged "from the question whether [creation is] *ab aeterno* or *de novo*" (p. 171). According to Dunphy, who is working principally from the Latin textual tradition, the first thesis can be rationally demonstrated, while "the latter question for Maimonides, as for Aquinas, is not susceptible of rational demonstration, notwithstanding the men of Kalām and the Aristotelians" (p. 171). One might have expected a bit more commentary on the meaning of the first thesis itself, particularly in light of A. Ivry's recent explication of the crucial phrase *ba'da l-'adama l'mahda l-mutlaq* as "after pure and absolute privation," rather than as "from nothing." Did Maimonides actually subscribe to the stronger version of creation *ex nihilo*?

This volume is well-conceived and well-executed. A "Select Bibliography" and an index of names and topics add to its attractiveness.—David R. Lachterman, *The Pennsylvania State University*.

PETERSON, M. D., and VAUGHAN, R. C., eds. *The Virginia Statute for Religious Freedom: Its Evolution and Consequences in American History*. Cambridge: Cambridge University Press, 1988. xviii + 373 pp. n.p.—In book Ten of the *Laws*, Plato's Athenian Stranger sets out the out-

lines of an argument of the sort that effectively dominated thinking for several millenia about the political role of religion. A *polis* that is to be free from faction and free for the right development of character requires a shared understanding of the human good and of the virtues of soul that are its components; religion provides that understanding in a way that connects up the human good with the nature of the whole; as the function of government is to support civic peace and a flourishing citizenry, it must support the means thereto, namely, a civic religion; and effective support, in turn, requires state-enforced prohibitions against publicly expressed disavowals or corruptions of that dogma. Not just any dogma will do, of course, and the Stranger devotes a good deal of energy to setting out the principles of the new religion.

Key elements of this argument were famously rejected by a variety of "classical liberals"—Locke, Adam Smith, Rousseau, Voltaire, among many others. These thinkers did not always agree on which part of the argument should be rejected (Locke, for example, endorsed state suppression of publicly expressed atheism, while Smith takes the state out of the religion business entirely, permitting it only the role of controlling intolerant religions). Nevertheless, the polemic against what one might call the "Platonic argument" constituted one of the two or three controlling themes of the Enlightenment, and on any account is a key element in liberalism's agenda. The secularization and demythologizing of public life, which seems to have been a consequence of the "separation between church and state" (in Jefferson's phrase), strikes many as one of the most remarkable and far reaching aspects of the modern liberal republic.

The rejection of the Platonic argument is especially striking in the United States. A study of the Founding period provides a fascinating window not just to Enlightenment theory but to the Enlightenment's political embodiment. While many will rightly take credit for the establishment of religious liberty in the Federal as well as in various state Constitutions—including James Madison and some dissenting religious sects—Thomas Jefferson will (as was his wish) be remembered for his pivotal role in the controversy. As author of the "Virginia Statute for Religious Freedom" (drafted in 1777 and passed in 1786) and as a source of sustained support for religious liberty both as President and private citizen, Jefferson left an extraordinarily influential legacy.

Yet the issue of religious liberty continues to generate discussion—not only in the courts, but among philosophers and political theorists. There are various reasons for this, among which four stand out. First, the issue cuts to the heart of problems of justification in political theory; for the debate between proponents and opponents of a political role for religion (at least, for revealed religion) calls into question the very meaning of "rationality," of what would count as an adequate *reason* for delimiting the powers of the state. Second, many political theorists have given up trying to find extra-historical, non-tradition-bound arguments for or against any moral or political theory; and this seems to leave us with something culturally "relative," an argument against the Platonic tradition that seems weak and unsatis-

fyng. Third, the religion issue provides a useful way to flesh out the philosophical and indeed theological commitments of liberalism's arguments for liberty of religious belief. For example, it provides a convenient way of seeing whether a "liberal" theory of justice can coherently be, in Rawls's recent formulation, "political not metaphysical." That claim has sparked a great deal of discussion, and the religion issue has played a correspondingly prominent role. Finally, a number of "communitarian" critics of liberalism (MacIntyre above all comes to mind) have cast a good deal of doubt on the desirability of the sort of culture Jefferson and his colleagues did so much to bring about and so, indirectly, on the desirability of excluding religion from public life.

The volume under review offers twelve essays by philosophers, historians, political theorists, and legal experts on the Virginia Statute for Religious Freedom. The articles are of high quality and form a coherent whole. The essays in the volume range from T. E. Buckley on Jefferson's "political theology" to J. G. A. Pocock on "Religious Freedom and the Desacralization of Politics" to A. E. Dick Howard on the Supreme Court and the "separation" of church and state. Other contributors include R. Rorty, M. E. Marty, E. S. Gaustad, L. Banning, R. Isaac, J. T. Noonan, Jr., C. Strout, D. Little, and L. Pfeffer.

Philosophers will be particularly interested in Richard Rorty's "The Priority of Democracy to Philosophy." Rorty is here at his most provocative. He argues that the "rationalist" justification of the Enlightenment for religious liberty is dead, and replaced with a theory that breaks "the link between truth and justifiability" (p. 258). Rorty eventually focuses on the recent Rawls, whom he (Rorty) now counts as one of his own. Rawls' strategy is "thoroughly historicist and antiuniversalist" (p. 262), and Rorty thinks of this as "a plausible extension of Jefferson's advocacy of religious toleration" (p. 263). Philosophy (in the grand old "Platonic" sense) is not "relevant" to democracy (p. 270). But how, Rorty goes on to ask, is one to respond to a Nietzsche or Loyola, given the severe difficulty of finding any common ground? Rorty recommends an "air of light-minded aestheticism" (p. 271) with respect to traditional philosophical questions about justifiability; Nietzsche and others may simply have to be dismissed as "crazy" (p. 269). Presumably this is the state of the art reply to the Platonic tradition. It is one calculated to keep the discussion going.

Like Rorty's essay, this book as a whole repays careful study.—Charles L. Griswold, Jr., *Howard University and The Woodrow Wilson Center for Scholars*.

PIPPIN, Robert. *Hegel's Idealism: The Satisfactions of Self-Consciousness*. Cambridge: Cambridge University Press, 1989. xii + 327 pp. Cloth, \$44.50; paper, \$16.95.—Robert Pippin's difficult but engrossing study of the genesis of Hegel's idealism gives rise to the following specu-

lation. Suppose that we regard the history of Western thought as an extensive illustration of Hegel's dialectic of master and slave. Poetry, having been banished from the philosophical city by Socrates, with the attendant subordination of the imagination to the intellect, returns to power in the nineteenth century after a series of gradually expanding dialectical insurrections, and restores the imagination to mastery over the intellect. The key event in this reversal is the transformation of Kant's "Copernican revolution" from a doctrine of transcendental order issuing from the world-constructing subject into a doctrine of transcendental history. The penultimate step is then the decay of the transcendental into its more vigorous historical component, with the subsequent triumph of historicism, perspectivalism, and radical individualism, in which even mathematics, logic, and scientific theories, for all their technical rigor, become artifacts of the local linguistic customs of the historical subject. Even positivism reveals its true colors in the oddly Nietzschean or Proustian celebration of "ways of worldmaking." The intellect is unmasked as the productive imagination.

Pippin's central interest is the process by which Hegel completes the Fichtean revision of Kant's doctrine of the unity of consciousness into a doctrine of the formal construction or positing of the world by the absolute ego. Fichte was primarily concerned to provide a more rigorous deductive structure to worldmaking as a series of self-limitations by absolute thought. In so doing, he prepared Schelling's conception of a transcendental history of the Absolute, in which mankind's striving for completeness results in an unending sequence of cosmogonic acts, united by their common conceptual structure and comprehensive goal. For Hegel, the result was doubly defective: not only does history, and so worldmaking, remain incomplete and human desire unsatisfied, but the world, as produced from the absolute ego, remains radically subjective.

In attempting to resolve these two defects, while at the same time retaining the underlying conceptual identity between the two poles of God and man, or eternity and history, and so overcoming the split between subject and object without reducing the one to the other, Hegel was forced to take desperate measures. In order to overcome Fichtean incompleteness, he had to demonstrate the fulfillment of the self-development of the Absolute as identical with the conceptual structure of human history. As if this were not hard enough, the need to preserve the objectivity of the world while retaining its status as a production of subjectivity required the conquest of the *nihil absolutum*, from which the world emerges, whether by transcendental fiat or immanent evolution. A complete conceptual account of the whole is one that must subordinate nothingness to conceptual mastery.

Pippin concentrates upon the second of these two requirements. His description of Hegel's procedure is also an attempt to purge it of mystical, religious, or metaphysical implications. In this perspective, Hegel's logic becomes a "metalevel" description of "what it means to be a thinking subject." He thereby interprets Hegel as continuing the Kantian effort to derive a paradigm for rationality, or, as it were, a model of rational discourse. On Pippin's reading, it is the theoretical

basis of model building, though neither the model nor its historical applications, that is complete. The Kantian heritage of this interpretation thus brings Hegel considerably closer to contemporary neo-Kantian currents in the philosophy of science. Kant's distinction between the transcendental and the empirical is preserved by attributing to Hegel the thesis that the self is the ground of the structural distinction (and at a deeper level, identity) between essences and appearances, but not of the manifold characteristics of the grounded structure.

This necessarily raises the question of how Hegel escapes from the following dilemma. Either he fails to overcome the Kantian dualism of what Hegel calls "Belief and Knowledge," or else he relapses into the Fichtean subjectivism that fails to preserve the distinction between the posited world and its creator, whether absolute or human. Perhaps these two horns of the dilemma reduce to a unique sword on which Hegel's thought is impaled. Pippin does not discuss the first horn except in terms of the second. That he is not himself free of its point is evident in his contention that, for Hegel, the object has its objectivity in the "Notion" or concept. This requires the assimilation of nothingness to the concept on the one hand, in order to raise creation from belief to knowledge, and on the other, an explanation of the inner nature and structure of nothingness, or what Hegel calls "negativity," now promoted to the active role of the origin of subject and object. My major criticism of Pippin's intelligent and erudite study is that he leads us to the edge of negativity but not into the depths of the abyss. It will not suffice to refer to negativity as the defective dimension in our theoretical constructions, and so as the perpetual obstacle to be overcome, as Pippin explains it. Pippin struggles gamely to make plausible Hegel's response to the aforementioned dilemma, and has much to teach us in the process. Let us hope that he will soon give us the analysis of negativity to which the present volume is an elegant preface.—Stanley Rosen, *The Pennsylvania State University*.

REALE, Giovanni. *The Schools of the Imperial Age*. Edited and translated by John R. Catan. Albany, N. Y.: State University of New York Press, 1990. xxvi + 548 pp. Cloth, \$54.50; paper, \$17.95—This book translates the fourth volume of Giovanni Reale's *Storia della filosofia antica* (Milan: Vita e pensiero, 1971–1980). The importance of the volume lies in its careful coverage of an era that previously had not received satisfactory attention. The period is the first five centuries of the Christian epoch, the period immediately succeeding the Hellenistic age. It was a period in which on the one hand the culture was dominated by imperial Rome, and on the other hand Christian thought was born and diffused. The reasons for the comparative neglect of such an important and intensely interesting period in western philosophy is explained (pp. xiii–xxiv) by Reale in a "Preface to the American Edition." Scholarship in ancient philosophy has tended

to focus on the classic and Hellenistic periods. Because of this historiographical situation, overall views of the later era have been scarce as well as too narrow in perspective, while detailed and specialized studies have separated the pagan thought of the epoch from early Christian thought as though these belonged to two different worlds. Reale states his intention of concentrating on the pagan thought in the present volume while leaving the Christian thought for a future work. In point of fact, however, he keeps his eye continually on the Christian development that was going on at the time and was exercising its influence on the philosophical thinking of the epoch. Precisely here is the special merit of his study to be found.

The book commences with a survey of the new course taken by Aristotelianism after its decline in the preceding period. An illuminating study of Alexander of Aphrodisias shows how "new mystical exigencies" brought about a situation in which "after Alexander Aristotelianism could survive only as a propaedeutic or complementary aspect of Platonism" (p. 33). The course of Epicureanism is then followed throughout the period up to its disappearance by the fourth century "when Neoplatonism and Christianity . . . had practically conquered the spirit of the age" (p. 49). The vitality of Stoicism during the epoch is then examined, with emphasis on Seneca's discovery of "*conscience* as a spiritual force which is fundamental to human morality" (p. 62). But he concludes: "In reality, the thought of Seneca and the religion of St. Paul move on two parallel lines which do not intersect and the points of contact between them are more apparent than real" (p. 68). Musonius Rufus, Epictetus, and Marcus Aurelius are then examined in detail (pp. 69-100). The currents of Skepticism are studied (pp. 103-42), with approval of the conclusion that the subsequent philosophical trends in certain cases "confidently accept some results of Skepticism precisely in order to open new perspectives" (p. 142). Cynicism is given good coverage, ending with the observation: "Actually, what many Cynics of the Imperial Age undoubtedly attempted in the Cynic life . . . was what the anchorites in the East and then the monks in the West tried to achieve within the confines of Christianity" (p. 163).

As regards the Platonism of the period, that of Philo is closely studied (pp. 167-204), with emphasis on his understanding of the divine name as "Being" (p. 187) and on the *Logos* doctrine (pp. 191-2). Middle Platonism and Neopythagoreanism and their final fusion is then covered (pp. 205-72), as are the Hermetic writers and the Chaldean Oracles with their importance for understanding the philosophical mentality and currents of the times (pp. 273-91). Neoplatonism is approached with a searching study of Ammonius Saccas, who turns out to be "no longer a precursor, but is the *initiator of Neoplatonism*" (p. 297), though like Socrates he left nothing in writing. Further, though "Plato is acknowledged as the absolute, almost always infallible authority" for Plotinus, Reale notes incisively that "some of the metaphysical and psychological concepts of Aristotle" (p. 307) were "determinative" (*determinanti*) in the constitution of his thought. If anything, this is an understatement. But the fact could hardly be expressed more aptly. Amelius, Porphyry, Iamblichus, Proclus, and

other Neoplatonists are considered in detail (pp. 401–46). The conclusion is that there was “a process of simplification of the Neoplatonic system so that the friction with the Christians was less and less sharp, but many thinkers ended by accepting the Christian message. . . . The Edict of 529 CE in reality only accelerated and sanctioned, directly, that end to which, as a matter of fact, ancient-pagan philosophy was, already left to itself, inexorably destined” (pp. 447–8).

The translation is in clear and smoothly flowing English. One might note that the rendering “Common Era” (pp. 11, 16, 21, 23, 37; cf. p. xxv) for the *era cristiana* in the original Italian edition is used as explained in a preceding volume. Indices and bibliography, as in the Italian, are left (p. 455) for the fifth volume. The footnotes, though conveniently located at the bottom of each page in the Italian, are relegated to the end of the book in the translation.—Joseph Owens, *Pontifical Institute of Mediaeval Studies*.

REEVE, C. D. C. *Socrates in the Apology: An Essay on Plato's Apology of Socrates*. Indianapolis: Hackett Publishing Company, 1989. xv + 207 pp. \$24.50—The Socrates of Plato's *Apology* is typically depicted as a brilliant ironist whose behavior at his trial contributed to his conviction and sentence. Beginning with Xenophon (*Xen. Ap.* 1), commentators have often characterized Socrates' speeches as adopting a prideful tone that was bound to offend even reasonable people. Some suggest that Socrates' arrogant conduct is exemplified by his own proposed sentence of meals in the Prytaneum. C. D. C. Reeve disputes this rather traditional reading of Plato's Socrates in his sensible and cogent book. On his view, Socrates is fundamentally non-ironic when he claims not to have knowledge or to teach. Furthermore, Socrates mounts a plausible defense against his accusers, which can be understood only in terms of his substantive philosophical positions. Thus, Reeve has much to say about such topics as the nature of the *elenchos*, Socratic irony, the profession of ignorance and whether Socrates is a teacher, moral virtue and happiness, Socratic religion, and Socratic politics. Here I shall focus on the following parts of Reeve's discussion: the charges against Socrates and the religious basis of his mission, the nature of “human wisdom” and expert knowledge, and questions about Socratic eudaimonism.

Reeve assesses the nature of both the formal and informal charges against Socrates. Socrates himself recognizes that the informal charges against him are damaging (*Ap.* 19b–c) and, according to Reeve, successfully undermines the caricature of him as a *phusikos* and sophist. Socrates disclaims scientific expertise and knows no more about science than anyone else who is familiar with contemporary natural investigations. To the charge of sophistry, Socrates responds by pro-

fessing ignorance of anything but "human wisdom" (*Ap.* 20d8) about the most important matters—namely, the virtues. Yet the sophists claim to have expert knowledge about the moral virtues. The formal charges (*Ap.* 24b-c), Reeve argues (pp. 79-82), are ultimately to be construed as an accusation of atheism, which is probably still an actionable offense in Athens in 399. Socrates is indicted both for being an atheist and also for corrupting others by his atheistic teaching. Thus, the informal charges give weight to the official writ of impiety.

According to Reeve, Socrates not only defends himself against such charges but he also conceives his philosophical mission to examine others as fundamentally religious since he undertakes to engage others elenctically on behalf of Apollo. Socrates does so first in order to interpret the Delphic oracle and next to support what he takes to be the truth pronounced by it. Socrates understands the Apollonic thesis to be that no human being has knowledge of the "most important matters." So Reeve concludes that for Socrates wisdom consists partly in the recognition that he lacks knowledge of moral virtue. Socratic wisdom also involves the acceptance of ethical statements implicitly believed by all normal human beings that additionally have the status of what Reeves terms "non-expert knowledge." Although the impetus for Socrates' elenctic investigation of other people is religious, Reeve also holds that an elenctically based justification explains the Socratic application of *elenchos*. For Socrates is persuaded by nothing but the best argument available (*Cr.* 46b4-6).

In order to formulate more precisely the nature of "human wisdom" and to resolve the well-known paradoxes associated with attribution of this wisdom to Socrates, Reeve develops what is perhaps the most intriguing thesis of his book. On Reeve's view, Socrates distinguishes between expert and non-expert knowledge. So-called human wisdom consists in the recognition that one fails to have expert knowledge of virtue. Much relies on this distinction and its application for Reeve's interpretation, as we shall see shortly. Expert knowledge is relevantly similar to craft-knowledge. Such knowledge is teachable, explanatory, *elenchos*-proof, independent of fortune, and absolutely certain (pp. 37-45). Socrates denies that he has this sort of knowledge of virtue and thus he is sincere in his profession of ignorance and his disclaimer of teaching. Moreover, after years of elenctic examination Socrates has never come across any other person who has such expert knowledge of virtue. Reeve holds that this expert knowledge of virtue, which he elsewhere identifies with the superordinate Socratic *technē* of politics, is next to impossible for human beings to achieve (pp. 38, 185). Nonetheless, Socrates does often make positive assertions. Furthermore, his conduct might plausibly be taken to indicate confidence about certain ethical statements. Reeve argues that Socrates never means to deny that he has non-expert knowledge of virtue. Non-expert knowledge claims are non-explanatory, merely *elenchos*-resistant (instead of *elenchos*-proof), not independent of fortune, and subject to revision. Propositions that are non-expertly known are true because they are also entailed by statements which are obvious truths that all normal persons accept (p. 51). Hence, they are unteachable

because they are already part of each person's (non-occurrent) belief-set. Thus, Reeve, if I understand him correctly, makes non-expert knowledge to be a form of justified, true belief.

How does this reading fit with Socratic eudaimonism? Craft-knowledge of virtue not only is necessary for virtue (p. 56) but, additionally, is identified with moral virtue (p. 144). Socrates also accepts the descriptive and normative versions of eudaimonism that typify the views of most Greek moral philosophers (p. 126). Accordingly, we expect Socrates to justify virtue in terms of our pursuit of happiness, which he does. Moral virtue is both necessary and sufficient for happiness (pp. 137-9). But these various propositions jointly lead to a number of problems, as Reeve is aware. Let me just mention two issues he discusses. If expert knowledge of virtue is unobtainable for human beings although such craft-knowledge is required for and identified with virtue, then voluntary, knowing vice seems impossible. Moreover, Socrates' elenctic task of trying to persuade others about his ethical views might appear unnecessary or even futile. Reeve's ingenious proposal is that Socrates wishes to dissuade people from the culpable ignorance of believing that one has expert knowledge of virtue when one really does not. This belief is harmful because it constitutes a blameworthy vice. All that is required for this task of disabusing people of their culpable ignorance is non-expert knowledge.

The second difficulty that I shall mention here is what Reeve terms "the inaccessibility of virtue." If expert knowledge is required for virtue and no one can obtain this knowledge, then obviously no one can be virtuous. Reeve dismisses this problem since he says it results from believing that "some people are virtuous even though none possess the knowledge in question" (p. 149) and it is a mistake to think that anyone is virtuous in the rigorous Socratic sense. Still, it seems to me that the problem goes deeper than Reeve allows and raises questions about his central distinction between expert and non-expert knowledge about virtue. If none of us strictly speaking can be virtuous and Socrates' eudaimonistic assumptions lead us to think that virtue is required for the happiness which we all want, then happiness is also an unrealizable aim. We need to reformulate our ultimate aim in terms of the avoidance of harm or the elimination of culpable ignorance (i.e., blameworthy vice) instead of unobtainable *eudaimonia*. Is Socrates then really a eudaimonist? Alternatively, perhaps we should deny that expert knowledge about virtue is strictly inaccessible. Or possibly Socrates holds some thesis about degrees of happiness that gives us a solution. However, Reeve leaves us, as it stands, with a series of open problems about Socrates' moral epistemology and eudaimonism.

If I am unpersuaded about several central claims that Reeve makes, it in no way diminishes the often striking and innovative nature of his readings of Socrates or the overall significance of the work for understanding the philosophical doctrines of Plato's early dialogues. Reeve's book is a major contribution to Socratic studies that belongs with recent, important work by such authors as Kraut, Brickhouse and Smith, and Vlastos.—Glenn Lesses, *College of Charleston*.

ROSS, Stephen David. *Inexhaustibility and Human Being: An Essay on Locality*. New York: Fordham University Press, 1989. xiii + 330 pp. \$40.00—The concept of inexhaustibility is developed by Stephen David Ross in terms of what he calls "locality." A "location" is a convergence of relations among beings and social practices clustered into spheres of "relevance," a notion understood fully only with reference to the various subjects of individual chapters: knowing, meaning, emotion, sociality, politics, life, and death. The main point about locality is that every being will be multiply located; indeed, that is what produces inexhaustibility. This is so in that: (a) Locations are hierarchically ordered. (b) The order is not fixed, but is relative to descriptions, which identify relations at many different levels. (c) Every description is itself the product of some location. (d) Therefore, there is no best description of the ordered relations or of a being's identity in them. Inexhaustibility is thus not simply indeterminate; multiple locality is the condition that defines it. Yet the conditioning of conditions themselves can ramify indefinitely. Limitation, then, actually opens up endless lines of development.

What human beings bring to inexhaustibility are "perspectives," the result of their inevitable predilection for "judgment." Judgment can take many forms, not necessarily rational or voluntary, and it consists in anything a person does that can be interpreted and "validated" from another perspective. Reason, which is defined as the capacity to "query," to carry on interrogative activities endlessly, also comes in several forms; in each case, inexhaustibility is made manifest. How this is so, in one category or another, is the focus of various chapters.

Ross argues against foundationalism on the grounds of the inexhaustibility of knowing; his positive point is that the same principle grounds local knowledge and circumvents skepticism. It supports a rejection of the demand for an unconditioned standard and allows local conditions to justify knowledge claims, so long as they hold up under continuing interrogation. Since the conditions for interrogation are themselves susceptible to reexamination, critical query produces what amounts to a metafalsifiability standard for justification.

Like his epistemology, Ross's theory of meaning is pluralistic; both encompass more than propositions. Thus he finds standard semantics to be inadequate. But he also argues that semiotics makes meaning depend improperly on interpretation. He offers, instead, a "field theory," which posits various types of relations among discursive and nondiscursive components, as central or peripheral to a "semasic field."

A related point of particular interest concerns the connection between thought and language. Ross rejects the view that all thought is propositional, that meaning is all mental, and that psychogrammar will suffice to provide for semantics. Such claims figure in recent philosophies of language and mind. However, Ross's principles lead him to cast a much wider net than is usually the case in cognitive science; for him, all human activity is cognitive insofar as it is judgmental. Some readers will resist the inexhaustibility thesis as thus too general, preferring to support some of his views on mind and meaning on other grounds.

Central claims made elsewhere in the book are: that emotions can be rational, that sexuality and reason are both individualized and socially conditioned, that classical liberalism in political theory is too individualistic and abstract, that technology can be a politicized mode of judgment. These views, too, will find approval among those inclined to disavow the metaphysical principles by which Ross aims to unify and ground them.

Nonetheless, the admirable larger goal of the book, which the author may argue is lost without his unifying basis, is this: to promote the understanding of relations among concepts and methods wielded by different modes of interrogation—hermeneutic and analytic, phenomenological and scientific—mistakenly treated as exclusive and antagonistic, through the development of a systematic theory.—Mark Rollins, *Washington University*.

SORABJI, Richard, ed. *Aristotle Transformed: The Ancient Commentators and Their Influence*. Ithaca, N.Y.: Cornell University Press, 1990. 545 pp. \$65.00—In this substantial collection Sorabji gathers twenty important studies on all aspects of the ancient Aristotelian commentary tradition, both Greek and Latin. The contributions are a mix of new studies and revisions and translations of classic studies. The collection has been judiciously arranged. Chapters cover all aspects and figures involved in this tradition, from the earliest commentators through Boethius and the beginnings of the Latin tradition. Both philosophical and historical issues are addressed.

The volume is offered as a companion piece to the translation series of the ancient commentators on Aristotle also edited by Sorabji. While it is neither a handbook nor a survey of the philosophy of the commentators, its comprehensive nature will permit it to serve that function until such a reference work appears. Particular studies include general accounts of the commentators (Sorabji, "The Ancient Commentators on Aristotle," and Karl Praechter's classic review of 1909, "Review of the *Commentaria in Aristotelem Graeca*"), studies of specific philosophers (Koenraad Verrycken, "The Development of Philoponus' Thought and Its Chronology," and Ilsetraut Hadot, "The Life and Work of Simplicius in Greek and Arabic Sources"), discussions of philosophical issues (Sorabji, "Infinite Power Impressed: The Transformation of Aristotle's Physics and Theology" and Ian Mueller, "Aristotle's Doctrine of Abstraction in the Commentators"), and accounts of the influence of these philosophers (Sten Ebbesen, "Porphyry's Legacy to Logic: A Reconstruction" and "Philoponus, 'Alexander' and the Origins of Medieval Logic"). These limited examples indicate the range of these studies, and the scholarship of the volume maintains a consistently high standard (though specialists will, of course, find points of disagreement).

While there is no need to recommend this collection to those already interested in the development and influence of the ancient Aristotelian

commentary tradition—indeed, the contents and participating scholars will accomplish that—I do wish to commend it to those who might in fact wonder whether there *is* any reason to delve into the thoughts of ancient interpreters of Aristotle. The reader will find within intriguing studies of many of the well-known fundamental issues from the writings of both earlier Greek philosophy and later medieval thought.

The technical production of the book is quite high, and it contains a select bibliography, index locorum, and general index. One might only wish that the general index was somewhat more extensive.—Lawrence P. Schrenk, *The Catholic University of America*.

VEATCH, Henry B. *Swimming Against the Current in Contemporary Philosophy*. Studies in Philosophy and the History of Philosophy, vol. 20. Washington, D. C.: Catholic University of America Press, 1990. 337 pp. \$44.95—This volume, subtitled "Occasional Essays and Papers," reflects summary thoughts of a professor of some fifty years who looks at the contemporary scene in philosophy from the ground of an Aristotelian and Thomist.

An introduction outlines what the author contends are some of the major problems in modern philosophy, caused in part by viewing what is perceived only through the prism of the scientific method, and the denial that moderate realism can discover reality, seeing rather that known reality is a construct.

The work is then divided into three parts. The first, in four articles, outlines what Veatch considers to be the condition of much of contemporary philosophy. He records what he contends are the effects of a preoccupation with scientism, the limitations of linguistics, and the isolation of deconstructionism. These are seen not only as impeding fruitful dialogue but as begetting a skepticism that has destroyed any measure of progress. Productive dialectic is supplanted by polite (most of the time) conversation. "Is it any wonder," the author asks, "that in philosophical circles nowadays . . . so far from it being supposed that philosophical discussion should ever lead to greater knowledge and understanding, its only function, as Richard Rorty would say, 'is to keep the conversation going'." What Veatch would find objectionable is that there would be no way known or knowable which would determine if the conversation were related to anything meaningful beyond the meaning of conversation.

Five articles in the second section discuss the status of ethics with some modern moral philosophers. The author holds that the understanding of a proper *telos*, seen as an Aristotelian concern for finality, is desirable for a foundation for formulating a moral code for humans. If ethics is not related to metaphysics, or if metaphysics is denied, moral theory is imperiled.

Moral action, which is directed by practical reason, must be done with some purpose or end to be achieved. And Veatch adds: ". . .

most contemporary deontologists, almost unconsciously, and apparently often without facing up to the implications of what they are doing, tend simply to deny . . . the fact that the prescription of practical reason can only be made with reference to some purpose or end."

The reluctance to face the implications of purposefulness and, therefore, a measure of a moral action, has produced alternatives which, according to Veatch, leave disquieting questions unanswered. If, for example, linguistic philosophy retreats by having analysis become the mission of philosophy, then situations do not become indicative of reasons for moral actions, but the rules of ethical language require that the assertion of certain moral propositions be conjoined with factual ones.

Nor does the utilitarian position escape the need for a comprehensive understanding of what the "good" is that is to be the measure for the greatest number or any one of that number. Is there to be a reference point beyond self-interest (and how is that to be defined?) which will permit moral norms beyond those of convention?

The third section contains seven articles ranging from an evaluation of the humanities in education to a defense of natural law and a discussion of civil law and its moral moorings. After making a distinction between the liberal arts and the humanities, Veatch insists that modern education is impoverished by insufficient concern with either—the intellectual skills of the liberal arts that are keys to the doors of knowledge and the humanities which enrich human understanding of self. These should not be considered as elective fringe benefits of the education process, but essential to its mission.

Recognizing that natural law is phoenix-like in that interest in it may wane, only to again have it attract the attention of serious thinkers, the author dismisses some attacks upon it as against straw men. He stresses the importance of a metaphysics to explore the meaning of and not simply the description of what it is to be human. This will include guides to moral norms which are implicit in the answer to the question of what it means to be human because it will include an understanding of fulfillment. Rational action will be based on such knowledge.

The author looks to the past and recognizes that natural law as he sees it has been misrepresented by some who pretended to be staunch defenders, who saw moral precepts implanted in man's mind or issued simply by the will of God. And he does not spare some current natural law proponents from sharp criticism because of what he considers to be a misreading of Aristotle and St. Thomas. When the relationship of ethics to metaphysics is lost, even its proponents can distort it, according to the writer.

Veatch writes clearly and forcefully. A brief review cannot reflect the wide engagement with fellow philosophers which occurs in this work. A select bibliography and an index are included.—John H. Ford, *Louisville, Kentucky*.

+ 201 pp. Cloth \$24.50—The present book is concerned with a problem of the concept of essence in Aristotle's *Metaphysics* 7-9. Charlotte Witt does not intend, as she points out already in the "Introduction" (pp. 1-5), to discuss the three books of the *Metaphysics* comprehensively: "I have not intended to level all the serious philosophical problems and issues of interpretation that abound in Aristotle's text" (p. 5). Rather, she takes on a standard interpretation of Aristotle's theory of essence in *Metaph.* 7-9 (as reported by Marjorie Grene, *A Portrait of Aristotle* [Chicago, 1963], W. K. C. Guthrie, *A History of Greek Philosophy* [Cambridge, 1981, vol. 6], and W. D. Ross, "Introduction," *Aristotle's Metaphysics* [Oxford 1924, vol. 1]). It is an essentialistic interpretation which is sustained by a contemporary element of essentialism, as represented by Saul Kripke, and explains the Aristotelian theory in this way, that the essence is the counterpart of a definition of the thing in question, as a species-holder. Thus it is a universal essence shared by all members of the same species, which Witt calls a "species-essence." The individuality of the things would be due only to the matter. The essence has the character of a universal property of the things or substances which share in it, and finally of their matter.

Against this interpretation Witt opposes her own, pointing out that, according to Aristotle, no universal can be substance or essence. Rather, the essence is the cause of the individual's being and is as such individual in itself.

Chapters 1 ("Being," pp. 6-37) and 2 ("Being and Substance," pp. 38-62) start from Aristotle's doctrine of being as such, the search for the causes of being, which are also principles of knowledge. They continue with the introduction of the metaphysical science of being as such and related problems, and move on to the definition of substance by means of the division of the categories of beings.

Chapter 3 ("The Metaphysical Structure of Sensible Substances," pp. 63-100) enters into Aristotle's analysis of the causes of the sensible substances, namely, matter and formal cause, taking into consideration also the doctrine of *Physics* 1-2.

Thus in chapter 4 ("The Nature and Function of Essence," pp. 101-142) the author finds access to the Aristotelian concept of essence in *Metaphysics* 7, which is nothing but the cause of the being of substances (pp. 112ff.), more exactly, the formal cause. Because of Aristotle's approach to essence in 7.4 via the definition, or that which is predicated of a thing *per se*, Witt's interpretation emphasizes that this does not mean that essence would be a *per se* property of the thing. The *per se* predication, rather, indicates what the thing essentially is, its essence. This concept of essence answers contemporaneously the question why the composite sensible substances have unity.

Chapter 5 ("The Ontological Status of Essence," pp. 143-79) explicates that, although the object of definition is the universal, the definable essence itself is no universal, but individual, because of Aristotle's explicit statements that no universal is a substance.

In the last chapter ("Aristotle and Kripke," pp. 180-97) the author compares her interpretation with Kripke's essentialistic one. According to his interpretation, the essence of a thing consists in its properties, but the thing is not a mere bundle of properties, or else it

would not be an individual any longer. But he rejects as well the view that the thing would be nothing but an individual, not offering, however, an alternative account.

Witt's interpretation is, seen globally, certainly right in refusing the identification of the Aristotelian essence with a universal property of the thing. The present book presents us with a well-structured position with clear argumentation. However, if the essence is individual, but nevertheless the object of a universal definition, it would require some interpretation to explain how for Aristotle both aspects fit together. The discussion of this has advanced by asking whether the Platonic doctrine of the definition of the essence—which for him is separated from sensible things—has been integrated appropriately into the Aristotelian perspective on essence as existing in the things themselves (for comparison, see the problem as stated by Joseph Owens and dealt with by the reviewer).—Horst Seidl, *Pontifical University of Lateran*.

CURRENT PERIODICAL ARTICLES

PHILOSOPHICAL ABSTRACTS*

AMERICAN PHILOSOPHICAL QUARTERLY
Vol. 27, No. 3, July 1990

Belief and the Logic of Self-Deception, NEWTON C. A. DA COSTA and STEVEN FRENCH

It is argued that the phenomenon of self-deception, as usually understood, presents no paradox if a nonclassical, paraconsistent doxastic logic is adopted. The discussion is couched in terms of a distinction between the "representational" and "factual" levels at which inconsistency can occur. In the latter case, where, it is claimed, self-deception should be located, a belief in a contradictory proposition implies the holding and not holding of a belief in a given proposition, whereas in the former case it does not. Since scientific beliefs may be described as "representational," this distinction then allows us to accommodate the existence of inconsistencies in science. Such considerations are reflected in the structure of the paraconsistent system presented in a technical appendix.

Recent Obituaries of Epistemology, SUSAN HAACK

Traditionalist apriorism in epistemology has been criticized both by reformists, who accept the legitimacy of traditional epistemological projects but tackle them in a naturalistic fashion, and by revolutionaries, who repudiate the traditional projects as misconceived. This paper defends the legitimacy of traditional epistemological problems against the criticisms of some recent revolutionaries, primarily Rorty and Stich. Rorty's critique rests on an equivocation; the failure of foundationalism (theories of justification distinguishing basic and derived beliefs and requiring evidential support to be one-directional) does not entail the failure of FOUNDATIONALISM (the idea that epistemic norms require objective grounding); and FOUNDATIONALISM does not require a correspondence theory of

* Abstracts of articles from leading philosophical journals are published as a regular feature of the *Review*. We wish to thank the editors of the journals represented for their cooperation, and the authors of the articles for their willingness to submit abstracts. Where abstracts have not been submitted, the name and author of the article are listed.

truth. Stich's claim that recent work in cognitive science suggests there may be no such things as beliefs rests on a misconstrual, primarily of evidence for the fallibility of introspection. Epistemology is not dead.

On the Alleged Methodological Infirmary of Ethics,
MICHELE M. MOODY-ADAMS

This article argues that the Quinean thesis of the methodological infirmity of ethics and the emotivist claim that ethical disagreement is ultimately nonrational rest on serious misconceptions about the nature of moral theory and moral argument. It is argued that the only empirical foothold of ethics is in the self-understandings of those addressed by ethical theory or involved in moral debate, and that the relation between ethical reflection and the relevant experience is different *in kind* from that between scientific reflection and the relevant experience. Thus, this article rejects as indefensible the demand that ethical claims be "testable" in the manner of scientific claims. Ethical disagreement is shown to be rational because it can stimulate the kind of self-scrutiny that is central to rationality. Finally, it is argued that ethics is epistemologically respectable even though its justificatory methods are not precisely analogous with those in science.

Epistemic Internalism's Dilemma,
STEPHEN CADE HETHERINGTON

The paper's first part proposes a simple account of epistemic internalism (for some given condition on justified belief) and then proceeds to describe a serious dilemma facing internalism. The dilemma's conclusion is that either (1) the internalist concedes the battle over any given condition to the externalist, or (2) that condition is unsatisfiable. In short, internalism gives way to either externalism or skepticism (for any given aspect of justification): necessarily, internalism is an empty concept. Ironically, what makes this result's availability not only serious, but also *surprising*, is its being grounded in a way of thinking which is anything *but* new. The paper's second part shows how Russell, Wittgenstein, Wilfrid Sellars, and A. J. Ayer were all aware of what is effectively the dilemma.

The Anatomy of Aggression, STEVEN LUPER-FOY

The author describes mechanisms by which mundane undertakings make aggressors of us, and along the way he analyzes competition, aggression, evil, and related phenomena. Aggression is taken to be acts causing anticipatable misfortune. A chief cause of aggression is competition for nonuniversalizable competitive properties and positional goods (as discussed by economist Fred Hirsch), which leads people to take an interest in harming others. Finally, the author sketches some of the moral and practical disadvantages of competing, and closes with the suggestion that

egalitarianism is a strained, unstable, and undesirable attempt to limit the harm caused by competition.

On "Why is There Something Rather Than Nothing?"
MARTIN KUSCH

Evolution, 'Typology' and 'Population Thinking',
MARJORIE GRENE

AUSTRALASIAN JOURNAL OF PHILOSOPHY
Vol. 68, No. 3, September 1990

Weakness of Will and Rational Action, ROBERT AUDI

This paper briefly sets out an account of weakness of will and assesses the bearing of such weakness on the rationality of actions that exhibit it—*incontinent actions*. Philosophers have tended to assume that incontinent action is a paradigm of irrationality, and only a few have seriously questioned this assumption. The paper first characterizes incontinence in some detail and, in that light, appraises some plausible arguments intended to show that it implies irrationality. The second main part of the article formulates and assesses a number of models of rational action that make the assumption of its irrationality plausible. The author proposes a different, wider, holistic conception of rational action and extends that notion to rationality in general. On the basis of this holistic view of rationality, it is argued that incontinent action, like certain of its epistemic counterparts, need not be irrational.

Searle on Natural Agency, JOHN BISHOP

Searle's contribution to the project of "reconciliatory naturalism" is examined through a study of his views about agency. The article argues that Searle's rejection of the possibility of free action in the natural causal order (as argued for in *Minds, Brains and Science*) is in serious tension with the causal account he has given of the satisfaction conditions for intentions (*Intentionality, An Essay in the Philosophy of Mind*). The latter is, in effect, a defense of a causal theory of action, and this theory, if successful, makes the place of agency in nature entirely intelligible. The author reveals the flaw in Searle's incompatibilist arguments, but argues as well that his *Intentionality* treatment of the problem of causal deviance falls short of an adequate solution to the problem of natural agency. The discussion illustrates the general importance of the success of causal theories of action for resolving skepticism about the place of the agent in nature.

"Pride Produces the Idea of Self": Hume on Moral Agency,
AMELIE RORTY

Artists, Programmes and Performance, S. GODLOVITCH

INTERNATIONAL PHILOSOPHICAL QUARTERLY
Vol. 30, No. 2, June 1990

Does God Create Existence? BRIAN DAVIES

The article asks whether it should be thought that God, by creating, brings about existence, considered as a property or attribute of individuals. It considers the thesis that existence is a property or attribute of individuals and, drawing especially on the work of Frege, argues that existence is no such thing. An attempt is then made to explain how this thesis is compatible with the assertion that there are things created by God.

Are Kant's "Aesthetic Judgment" and "Judgment of Taste"
Synonymous? THEODORE A. GRACYK

Kant's *Critique of Judgment* distinguishes between the feeling of pleasure which accompanies an aesthetic judgment and the judgment that the object is beautiful. Kant asserts both that the feeling is the basis of aesthetic judgment and that the judgment is the basis of the feeling. Some commentators resolve this contradiction by distinguishing the "judging of the object" from the "judgment of taste" within the aesthetic judgment. While helpful, this line of interpretation must be revised to take account of Kant's emphasis on the nonconceptual status of aesthetic judgments and the empirical component of judgments of taste. Kant should be read as proposing that judgments of taste involve a sequence of judgments, in which feeling provides the nonconceptual aesthetic judgment concerning the representation of the object, followed by a conceptually determinate judgment concerning the empirical object.

Experiential Ontology: The Origins of the Nishida Philosophy in
the Doctrine of Pure Experience, ANDREW FEENBERG
and YOKO ARISAKA

The thesis of this article is that Kitaro Nishida, Japan's leading philosopher in this century, should be interpreted against the background of the Continental tradition. Like many of his European contemporaries, he attempted to conceive immediate experience as an ontological absolute. The article discusses his relation to William James, Fichte, Hegel, Husserl, Heidegger, and Western Marxism. Nishida's first book developed a version

of William James's theory of "radical empiricism." Following Fichte and Husserl, Nishida later attempted to overcome psychologism without abandoning the experiential standpoint of modern thought. But, under the influence of Hegel, he eventually moved away from phenomenology and proposed a dialectical analysis of experience in terms of what he called "Place," an approach he applied to the theory of history. His final writings on religion develop a new type of experiential ontology.

What Wittgenstein Wasn't, JERRY H. GILL

After tracing and rejecting the rationales generally offered for labeling Wittgenstein a fideist, a behaviorist, a positivist, and a conventionalist, the conclusion is reached that he is best termed a "linguistic phenomenologist." The rationale for this view focuses on his emphasis on the descriptive qualities of philosophical activity, the mediation of intentionality through action, the social, interactive nature of human experience, and the axial character of the human "form of life," or "way-of-being-in-the-world," as the final justification of all knowledge claims.

Marx's Use of Religious Metaphors, THOMAS M. JEANNOT

Rorty's Pragmatism and the Pursuit of Truth, RON BONTEKOE

JOURNAL OF PHILOSOPHICAL RESEARCH
(formerly PHILOSOPHY RESEARCH ARCHIVES)
Vol. 15, 1989-90

The Demand for Justification In Ethics,
PANAYOT BUTCHVAROV

The common belief that the epistemic credentials of ethics are quite questionable and therefore in need of special justification is an illusion made possible by the logical gap between reason and belief. This gap manifests itself sometimes even outside ethics. In ethics its manifestations are common because of the practical nature of ethics. The attempt to cover it up takes the form of exorbitant demands for justification and often leads to espousing noncognitivism.

Could There be a Rationally Grounded Universal Morality? (Ethical Relativism in Williams, Lovibond, and MacIntyre), E. J. BOND

Williams claims that the only *particular* moral truths, and perhaps the only moral truths of any kind, are nonobjective, that is, culture-bound.

For Lovibond we have moral truths when an assertion-condition is satisfied, and that is determined by the voice of the relevant moral authority as embodied in the institutions of the *sittlich* morality. According to MacIntyre one must speak from within a living tradition for which there can be no external rational grounding. However, if this paper's criticisms of traditional philosophical ethics are sound, such relativist and historicist views are unjustified and the project of seeking a rationally grounded morality is perfectly in order.

Kantian Ethics Today, WILLIAM K. FRANKENA

Kantian ethics is both very much alive and very much under attack in recent moral philosophy. The author proposes to review some of the discussion, noting in advance that the review will have to be incomplete and oversimplified in various ways.

Practical Rationality: Some Kantian Reflections,
HUGH J. MCCANN

Recent views on practical rationality harmonize well with a fundamentally Kantian conception of the foundations of morality. Rationality in practical thinking is not a matter of valid reasoning, or of following maximization principles. From an agent-centered perspective, it consists in observing certain standards of consistency. In themselves, these standards lack the force of duties, hence, there can be no irresolvable conflict between rationality and morality. Furthermore, the Kantian test of universalization for maxims of action may be seen as adapting agent-centered standards of consistency to the task of specifying moral duties, so that objective rationality and morality are one and the same.

Rationally Justifying Political Coercion, RUSSELL HARDIN

The central problem of political philosophy is how to justify coercion by government. For political theories that are based in a rational accounting of the interests of the polity, citizens must have consented at least indirectly to coercion. Such indirect consent to coercion is plausible for ordinary contexts such as, for example, submitting to legally enforceable contracts. Unfortunately, however, Hobbesian mutual advantage, contemporary contractarian, and Lockean natural rights theories, all of which at least in large part ground the state in rational interests, can justify government coercion only in principle. They cannot justify coercion by actual states. In practice, these theories are morally indeterminate.

Justification: It Need Not Cause but it Must be Accessible,
CARL GINET

This paper argues that a fact which constitutes part of a subject's being justified in adopting an action or a belief at a particular time need

not be part of what induced the subject to adopt that action or belief, but it must be something to which the subject had immediate access. It argues that similar points hold for justification of the involuntary acquisition of a belief and for the justification of continuing a belief (actively or dispositionally).

Fumerton's Puzzle, RICHARD FOLEY

There is a puzzle that is faced by every philosophical account of rational belief, rational strategy, rational planning, or whatever. The article describes this puzzle, examines Richard Fumerton's proposed solution to it, and then sketches the author's own preferred solution.

Incontinent Belief, BRIAN P. McLAUGHLIN

Alfred Mele has recently attempted to direct attention to a neglected species of irrational belief which he calls "incontinent belief." He has devoted a paper and an entire chapter (chapter eight) of his book, *Irrationality* (1987), to explaining its logical possibility. This article appeals to familiar facts about the difference between belief and action to make a case that it is *entirely unproblematic* that incontinent belief is logically possible. In the process, it calls into question the philosophical interest of incontinent belief. If this article is correct, incontinent belief does not warrant the attention of philosophers of mind.

Reasons, Values, and Rational Action, PAUL K. MOSER

This article outlines an account of rational action. It distinguishes three species of reasons: motivating reasons, evidential reasons, and normative reasons. It also contends that there is a univocal notion of reason common to the notions of motivating reasons, evidential reasons, and normative reasons. Given this thesis, the article explains how we can have a unified theory of reasons for action. It also explains the role of values in rational action. It sketches an affective approach to value that contrasts with prominent desire-satisfaction approaches.

Some Remarks on Laudan's Theory of Scientific Rationality,
BARBARA VON ECKARDT

When is it rational to pursue a research tradition? In *Progress and Its Problems*, Laudan suggests that if a research tradition RT has a higher rate of progress than any of its rivals, where the rate of progress of an RT is the problem-solving effectiveness of its theories over time, then it is rational to pursue RT. The author offers a number of criticisms of this suggestion, with special attention to the current controversy over the rational pursuability of cognitive science.

Reflections on Hobbes: Recent Work on His Moral and Political Philosophy, EDWIN CURLEY

In this article the author attempts to survey work on Hobbes within the period from 1975 to 1989. The text is restricted almost exclusively to work in English on topics in moral and political philosophy. The central questions on which the article focuses are these: what psychological assumptions underlie Hobbes's moral and political conclusions? In particular, what roles do egoism, the striving for self-preservation, and the desire for glory play in his system? To what extent is Hobbes committed to the claim that the state of nature is a war of all against all? Does that war stem from human rationality or from human irrationality? Does Hobbes view morality as entirely a human invention, a creation of the state? If people had the psychology Hobbes assumes in justifying the institution of a sovereign, would they be able to institute one? To what extent does Hobbes regard rebellion as justifiable?

Does Artificial Intelligence Require Artificial Ego?
A Critique of Haugeland, THOMAS EDELSON

In *Artificial Intelligence: The Very Idea*, John Haugeland predicts that it will not be possible to create systems which understand discourse about people unless those systems share certain characteristics of people, specifically what he calls "ego involvement." The article argues that his argument fails at two points. First, he has not established that it is impossible to understand ego involvement without simulating the processes which underlie it. Second, even if the first point be granted, the conclusion does not follow, for it is possible to *simulate* ego involvement without *having* it.

Causation, Transitivity, and Causal Relata, DAVID LYNN HOLT

The author considers an alleged example of a nontransitive causal chain on the basis of which J. Lee has argued that causation is nontransitive. The article shows that his analysis of the example rests on an approach to causal relata that is too coarse-grained. The author develops a fine-grained analysis of events which owes much to Dretske's notion of an allomorphic event, and then uses this analysis to show that in the example all the genuine causal chains are indeed transitive. It emerges that when fine-grained analyses of events are possible, causal contexts are allomorphically sensitive.

The Ontological Argument Reconsidered, ODED BALABAN and ASNAT AVSHALOM

The ontological argument—first proposed by St. Anselm and subsequently developed by Descartes, Leibniz, Kant, Hegel, and Marx—furnishes a key to understanding the relationship between thought and reality. This

article focuses on Hegel's attitude towards the ontological argument as set out in his *Science of Logic*, where it appears as a paradigm of the relationship between thought and reality. The great opponents of the ontological argument, from Hume down to our day—and even Kant—have based their arguments upon the fundamental empiricist assertion that existential judgments are not analytical. This article attempts to defend the ontological argument against its opponents.

Metaphysics, OTTO WEININGER

This is a translation by S. A. M. Burns of a posthumous essay by the Viennese philosopher-psychologist Otto Weininger (1880–1903). His main book, *Sex and Character*, was published in 1903 (English version, 1906). Many distinguished Viennese were deeply influenced by Weininger; among them was Ludwig Wittgenstein, who paid tribute to him even late in his life. In particular, he is known to have admired the present essay and its foray into “animal psychology.” The investigation of the significance for human psychology of dogs and other animals is part of a larger scheme which Weininger sketches to investigate the symbolism of all kinds of things. His ultimate goal is to reveal the relationship between the microcosm of the human consciousness and the macrocosm of the external universe. Hence the title, “Metaphysics.”

Callahan on Harming the Dead, ANTHONY SERAFINI

This article attempts to defend the notion that the dead can be harmed, in opposition to Callahan and in accord with some ideas of Feinberg. In agreement with Parfit, the author argues that the existence of a person has degrees. The article suggests that *properties* of a subject, such as “reputations” and claims, can persist after death, although the subject as such does not, and that these can be harmed. A promise, for example, can be frustrated merely by being ignored; in that sense a dead person can be wronged, and if wronged, he can be harmed.

Embarrassment and Self-Esteem, BÉLA SZABADOS

Emotions are now a prominent philosophical topic. Yet the recent literature is bent on grand theorizing rather than attempting to explore particular emotions and their roles in our lives. This article aims to remedy this situation somewhat by exploring the emotion of embarrassment. The author first critically examines R. C. Solomon's conceptual sketch and attempts to distinguish “embarrassment” from “shame,” “humiliation,” and “being amused.” Secondly, it is argued that “private embarrassment” is a coherent and useful idea and social scientists and philosophers who dismiss it as unintelligible are mistaken. Thirdly, the question of why embarrassment (unlike other emotions) is catching is discussed. Fourth, the author makes the heretical suggestion that doing philosophy is essentially embarrassing for Socratic interlocutors. Throughout the paper there is a discussion of possible links between embarrassment and loss of self-esteem.

Rand Socialist? DAN TURNER

In an article for this journal Michael Goldman has argued, *inter alia*, that Ayn Rand's ethical views are, contrary to her own belief, inconsistent with capitalism. Despite the apparent perversity of such a claim, his argument has some plausibility. This paper is a response to Goldman's argument, a clarification of the relevant concepts, and a suggestion for an alternative—more plausible and interesting—interpretation of a relevant aspect of Rand's ethical position, her views about how human beings ought to relate to each other.

A Causal Theory of Intending, ROBERT K. SHOPE

Having an intention can be analyzed in terms of certain causal powers possessed by an instance of one's having a thought of a certain state of affairs, where a certain preference is what causes those powers to be present. A suitable understanding of such a preference emerges from a discussion of Wayne A. Davis's analysis of intending. However, Davis's emphasis on belief and desire rather than on instances of having a thought leads to difficulties for his analysis of intending. After supplementing his own analysis with a sufficient condition of intentional action, the author defends his approach by relating it to D. F. Gustafson's *Intention and Agency*.

THE JOURNAL OF PHILOSOPHY
Vol. 87, No. 1, January 1990

The Division of Cognitive Labor, PHILIP KITCHER

Sometimes in the course of inquiry there are rival points of view, each of which has some evidence in its favor. Under these circumstances, resolution of the issue between them in favor of one of them is undesirable. From the perspective of the community of inquirers it would be better if both were pursued further until some more definitive state is reached. This article considers the questions: When is cognitive diversity desirable? How might cognitive diversity be maintained? It constructs highly idealized models of collective and individual epistemic behavior to show that there are sometimes conflicts between the demands of collective and individual rationality. Moreover, factors that have often been regarded as interfering with the growth of knowledge, such as desire for personal glory, are shown to be able to play a positive role in the community epistemic project.

THE JOURNAL OF PHILOSOPHY
Vol. 87, No. 4, April 1990

The Reward Event and Motivation, CAROLYN R. MORILLO

The paper sketches a theory of motivation based on empirical studies of the rewarding nature of electrical stimulation of the brain, of the use

of many drugs, and of a possible common dopamine foundation for these phenomena. The theory speculates that (1) all positive motivation is anchored in *internal* reward events, (2) there is only one *ultimate* object of (positive) motivation, and (3) we intrinsically desire these reward events *because* they are intrinsically satisfying; they are not intrinsically satisfying *because* we desire them. The theory challenges philosophical theories of motivation often appealed to in criticisms of psychological egoism as well as the adequacy of belief-desire models for explaining action. A central aim is to define the issues so they could *eventually* be settled by empirical evidence.

Mutual Benevolence and the Theory of Happiness,

DAVID M. ESTLUND

Imagine just two people, each of whom has no desire other than for the satisfaction of the other's desire. The object of the one's desire is the satisfaction of the other's, but the satisfaction of the other's desire would be constituted only by the satisfaction of the one's, and so on in a loop. The structure of this case is important for moral theory, by way of the havoc it wreaks on the notions of benevolence and happiness. The loop problem depends on, and so exerts a certain pressure on, a satisfaction conception of happiness, according to which happiness is, in one way or another, the satisfaction of passions or desires.

THE JOURNAL OF PHILOSOPHY

Vol. 87, No. 5, May 1990

Second Thoughts About Church's Thesis And Mathematical Proofs,

ELLIOTT MENDELSON

It is widely-held that Church's Thesis (CT) cannot be proved because it equates a precise concept (Turing-computable function) with an intuitive notion (algorithmically-computable function). Challenging this view, the article points out that it is universally acknowledged that half of CT has a perfectly acceptable proof that is as convincing and rigorous as any known mathematical proof. Thus, there is no inherent reason why intuitive concepts cannot be proved to be equivalent to (allegedly) precise concepts. Historical support for this contention comes from a host of other "theses" that have come to be accepted by logicians and mathematicians. The article treats four examples in detail (the definition of functions in terms of ordered pairs, Tarski's definition of truth, the semantical definition of logical validity, and the Cauchy-Weierstrass definition of the notion of "limit" in analysis). It is also noted that precise concepts are ultimately based on intuitive notions.

Second-Order Logic, Foundations, and Rules,

STEWART SHAPIRO

The purpose of this paper is to discuss the role of formal semantics in describing and codifying practice. The case study is the issue of second-order logic, with its various semantics. It is argued that the debate is

likely to result in either a regress or a stand-off, with each side begging the central question of whether there is a clear and unequivocal understanding of such locutions as "all properties" or "all subsets" of a fixed domain. The issue of second-order logic is related to the Wittgensteinian critique of rule-following. It is suggested that the insistence on standard semantics, despite the possibility of Skolemite reinterpretation (or misinterpretation), is closely analogous to the insistence that one is following a particular rule, despite the fact that no finite amount of behavior can rule out alternatives.

THE JOURNAL OF PHILOSOPHY
Vol. 87, No. 6, June 1990

The Structure and Content of Truth, DONALD DAVIDSON

This article consists of the three John Dewey lectures delivered at Columbia University in November 1989. The first part examines the significance of Tarski's work on truth. It rejects both the deflationary claim that Tarski has told us essentially all there is to know about truth, and the claim that he told us nothing. The second part argues against correspondence theories of truth and against theories that make truth an epistemic concept. The third part develops the idea that truth is an indispensable and irreducible concept that is required in order to understand, explain, and describe human thought, speech, and action. A unified theory of belief, desire, and meaning is presented to implement this idea.

JOURNAL OF THE HISTORY OF PHILOSOPHY
Vol. 28, No. 3, July 1990

On the Skeptical Influence of Gorgias's On Non-Being,
STEVE HAYS

Though considerable attention has been paid to the philosophical content of Gorgias's skeptical treatise *On Non-Being*, historians of philosophy have virtually ignored the question of the influence of the work in the late fifth and early fourth centuries. This article adduces evidence from Isocrates, Aristophanes, and Plato to argue: (1) that the treatise was very well known by name among educated Athenians of the period and that at least one of its skeptical arguments was sufficiently current at the popular level to form the basis of an Aristophanic caricature; and (2) that Plato recognized in Gorgias's arguments a challenge to his own philosophical views to which Plato or others would have to respond. This piece of philosophical history is particularly important to Platonic studies, for its conclusions raise the possibility that some of the extant dialogues might contain previously unnoticed Platonic strategies for countering the particular skeptical arguments of Gorgias's *On Non-Being*.

*Aristotle's God and the Authenticity of De mundo: An Early
Modern Controversy*, JILL KRAYE

Covering the period from the Renaissance to the end of the eighteenth century, the article examines the views of a number of scholars about the authenticity of *De mundo*, a brief Greek tract attributed to Aristotle but now usually dated to the first century B.C. or A.D. Because the treatise endorses divine providence and creation of the world, those who wanted to argue that Aristotelian theology was basically compatible with Christianity had strong motivation to accept it as genuine. Those, on the other hand, who regarded Aristotle's God as fundamentally at odds with Christian notions of divinity firmly rejected the work as spurious.

Deduction, Confirmation, and the Laws of Nature in Descartes'
Principia Philosophiae, STEVEN NADLER

The standard interpretation of Descartes' method of establishing the laws of nature suggests that it is an entirely *a priori* affair, with Descartes simply deducing the laws from God's nature, independently of any appeals to experience or experiment. This article argues that while Descartes does indeed "deduce" the laws from God's nature, this is not sufficient to establish their truth. The confirmation of the laws is achieved by agreement with empirical data. The deduction serves only as a basis for postulating one particular set of laws over any others, that is, as a means of securing consistency between the laws of nature and first principles. Descartes' method in establishing the laws of nature is thus not *a priori*, but hypothetico-deductive.

Berkeley's Manifest Qualities Thesis, PHILLIP D. CUMMINS

The manifest qualities thesis (MQT) is the claim that no sensible object has any qualities besides those it is perceived to have. There is conclusive evidence that Berkeley not only asserted MQT, but also used it to defend theses (for example, that only spirits are causes) which are central to the immaterialism of the *Principles* and *Three Dialogues*. In defense of MQT Berkeley asserts that sensibles are "ideas" which "exist only in the mind." This article explores various interpretations of "idea" and the lines of argument they provide for MQT and it concludes that only one—the sensations interpretation of sensible qualities—provides a somewhat plausible reason for holding MQT.

"The Right of a State" in Immanuel Kant's Doctrine of Right,
BERND LUDWIG

It is a widely accepted opinion that the *Doctrine of Right* is an imperfect product of Kant's later life, affected by the author's senility. This article shows (by focusing on paragraphs 44–52) there is strong evidence that the printed version of 1797 delivers not the text Kant intended to publish, but

rather an incorrect composition out of his manuscript, assembled by third hand. In the paper, the originally intended text is reconstructed by following the internal cross-references given by the author. The coherence of this "original" text is demonstrated in the last section, interpreting the "Right of a State," which now shows no evidence of being the product of Kant's declining years.

Philosophical Investigations §201: A Wittgensteinian Reply to Kripke, DONNA M. SUMMERFIELD

A reading of *Philosophical Investigations* §201 is offered according to which it articulates an answer to the rule-following paradox: If there is a skeptical paradox about the expression of a rule, there is a parallel skeptical paradox about the behavioral response to a rule. But the former paradox arises only so long as we assume, illegitimately, that the latter does not. If the paradox cannot be raised legitimately, then, in one sense, there simply is no problem. Still, to escape the residual pessimism, we must uncover and reject the assumption that tempts us to formulate a paradox. When we do so, we see that a problem of representation remains, but also that it is no longer formidable. Thus, we *can* show how signs point. The article articulates the problematic assumption, presents Wittgenstein's solution to the legitimate problem of representation, and shows how Wittgenstein escapes certain charges made successfully against Kripke's Wittgenstein.

THE MONIST

Vol. 73, No. 2, April 1990

Life After Difference: The Positions of the Interpreter and the Positionings of the Interpreted, CHARLES ALTIERI

This essay argues that we need to complement concerns for the truth claims that interpreters can make in the arts with concerns for the powers of agency and models of possible communication that one can dramatize through a phenomenology of interpretation based on the singular pronoun positions that interpreters assume. First-person accounts clarify what remains different despite third-person agreements, differences described as tiltings within an aspectual model of personal identity. This model then enables us to recast Kant's antinomy of aesthetic judgment by showing how assuming third-person criteria serves first-person interests. Finally attention to interpreters' use of second-person pronouns for themselves and for texts clarifies dimensions of intimacy, authority, and negotiability over time which cannot be addressed by traditional uses of first- and third-person stances. This sense of the "you" is the best access to a "we" responsive to heterogeneity.

THE MONIST
Vol. 73, No. 3, July 1990

Types of Pluralism, WALTER WATSON

Contemporary pluralism is not a new philosophy or the result of some new philosophic principle, but a development that can occur within the principles of any philosophy. There are therefore as many types of pluralism as there are types of philosophy. The pluralisms of Nicholas Rescher, Stephen Pepper, Wayne Booth, and Richard McKeon are shown to be developments of potentialities present in the classic American philosophies of, respectively, William James, C. S. Peirce, Josiah Royce, and John Dewey. The different types of pluralism are compared with respect to why there is a plurality of philosophies, how this plurality is related to reality, what philosophies are considered valid, and how, in interpreting texts, a pluralism enables one to distinguish between interpretation *from within*, or *endothemic* interpretation, and interpretation *from without*, or *exothemic* interpretation.

Why Pluralism Now? EUGENE GARVER

It is no flaw in philosophic heroes of the past that they were not pluralists, that they saw no need to try to do justice to competing views, but instead expressed conviction that they were about to put an end to controversy by putting philosophy on a firm scientific basis. But, while such behavior is no flaw for them, it would be for contemporary philosophy, which seems to feel an obligation at least to appear more modest. Modern pluralism is a response to what Hume noticed as a novel phenomenon in his time, what he calls "parties from principle," factions based on ideas rather than interest. While conventional liberalism was designed to deal with parties from interest, parties from principle require more complicated, and more philosophical, practical responses.

Metaphor and Pluralism, EARL R. MACCORMAC

Pluralism can be understood today in two ways: (1) the traditional metaphysical question of the nature of reality—are there many substances or one?; and (2) methodological pluralism, in which many philosophical methodologies are considered to be legitimate. Metaphor exhibits a strong form of methodological pluralism and a weak form of ontological pluralism. As a linguistic device expressing a cognitive process, metaphor serves both as a representation of reality and an expression of the basic assumptions upon which that representation rests. Discovering that theories depend upon basic metaphors and that a theory of metaphor must be subject to the same requirement, theorists of metaphor are forced into a position of methodological pluralism. Acknowledging methodological pluralism, however, does not necessarily force one into epistemological relativism.

Metaphors and theories about metaphor must find some intersubjectively testable grounding in sense perception.

Is King Lear Like the Pacific Ocean or the Washington Monument?: Critical Pluralism and Literary Interpretation,
JAMES PHELAN

The essay examines the ontological status of the literary text as viewed by the critical pluralist. Are texts already constructed prior to interpretation or are they always constructed in the act of interpretation? The essay argues that because pluralism is itself based on the principle of reciprocal priority, that is, the idea that different valid systems can account for each other, the thoroughgoing pluralist will accept both views of the text's status. That conclusion in turn means that pluralism is itself plural, that the different views give rise to different, reciprocally prior pluralisms. Because of this reciprocal priority, any theorist chooses a pluralist system not by appealing to universal truths but by finding internally persuasive reasons for it. After describing several different systems and presenting reasons for a choice, the essay demonstrates some consequences of that pluralism for the evaluation of interpretive systems and for practical criticism.

Ethical Pluralism and the Role of Opposition in Democratic Politics, FRED D'AGOSTINO

Democratic opposition is loyal (to the system of government) and tolerated (by those who hold power). That there is a legitimate role for opposition is morally problematic. Either the government's policies are right or wrong, from a moral point of view. If they are right, it is unclear as to why they should be opposed and why the government should tolerate the activities of those who oppose them. If they are wrong, it is unclear as to why opposition to them should be restrained by loyalty to the system and why the government should be thought of as tolerant of such opposition. That both government and opposition are fallible is one solution to this conundrum; that loyalty and toleration are prudent is another; that moral progress is facilitated by the institutions of opposition is a third. These three solutions are rejected in favor of a solution based on the idea that there is a plurality of incommensurable value-orientations.

Systematic Pluralism: An Introduction, JAMES E. FORD

An Historical Sketch of Pluralism, ANDREW J. RECK

Simmel's Pluralism as a Resource for Sociological Metatheory,
DONALD N. LEVINE

NOUS

Vol. 24, No. 1, March 1990

Beauty as the Transition from Nature to Freedom in Kant's Critique of Judgment, KLAUS DÜSING

The transition from nature to freedom, made possible by the beautiful, has first an empirical-anthropological meaning. The consideration of the beautiful liberates one from the coercion of the senses and disposes one to a habitual moral attitude. That transition has secondly a fundamental transcendental sense. The free and harmonious play of imagination and understanding, which is brought about in the consideration of the beautiful, opens up prospects for the intellectual substrate of humanity, which should not be thought of as something indeterminable, but rather as a spontaneity. Under moral laws, this means freedom.

 THE PHILOSOPHICAL QUARTERLY
 Vol. 40, No. 159, April 1990
Geach on "Good," CHARLES R. PIGDEN

According to Geach, "good" is an attributive adjective. This disposes of the fiction of a nonnatural property of goodness answering to the predicative "good" and opens the way for a naturalistic and Aristotelian ethic. Geach hopes to "pass" from the "purely descriptive" "man" to the concept of a *good* man. Human beings have a function, and the good man is one who performs his function well. This paper argues that "good" has both a predicative and an attributive use, and that these are not mere homonyms but variations on a conceptual theme. Moorean goodness may be metaphysically suspect, but it is grammatically in order. In everyday contexts "good" can be both action-guiding and descriptive. "Good" must be understood in terms of contextually specified requirements, and can only be used to found a naturalistic ethic if the requirements themselves are "natural." But you cannot extract specific and credible naturalistic requirements from man's biological function.

Four Views of Arithmetical Truth, CHARLES SAYWARD

Four views of arithmetical truth are distinguished: the classical view, the simple provability view, the extended provability view, and the criterial view. The relative merits and difficulties of each view are set out. The first three views agree that there is such a thing as arithmetical truth; they disagree on its nature. The criterial view denies that there is arithmetic truth. The criterial view is not the same as formalism. It is argued that the criterial view is the best of the four views.

Intentionality and Stich's Theory of Brain Sentence Syntax,
DALE JACQUETTE

Stephen P. Stich maintains that causal interactions of syntactical brain sentence tokens with neural mechanisms are in principle sufficient to explain psychological and intelligent behavioral phenomena in a purely syntactical theory of mind without resort to the intentional concepts or representational content of traditional folk psychology. It is shown that a purely syntactical analysis fails to provide adequate identity criteria for brain sentence tokens in the absence of semantic correlations, especially for ideologically distant subjects. This invalidates Stich's applications of the theory, which are plausible only insofar as they are not purely syntactical, but involve intentional correlations of brain sentence tokens and semantic interpretations of logical connectives. The concept of pure syntax on which Stich's projected mature cognitive science rests is exposed as a myth of artificial intelligence and mechanist philosophy of mind.

Identity, Survival, and Sortal Concepts, JAMES BAILLIE

The following claims regarding purported cases of identity through time for members of natural kinds are contested: Firstly, that there must be a principle whereby temporal stages *a* and *b* can be located on a single continuous spatio-temporal path and thereby be identified as stages of the same continuant particular; secondly, that the identification of *a* and *b* must be "sortal-covered," that is, that they be identified not just as stages of "the same thing," but as of "the same *f*," where *f* is the appropriate natural kind concept; thirdly, that a particular cannot change from being a member of one natural kind to being a member of another without contravening the conditions under which its identity holds. The proposals of Derek Parfit and Andrew Brennan for replacing the identity relation with (respectively) "Relation R" and the "survival relation" are recommended.

The Refutation of the Ontological Argument, P. J. McGRATH

THE PHILOSOPHICAL QUARTERLY
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Whose Language Is It Anyway? Some Notes on Idiolects,
ALEXANDER GEORGE

This article examines and ultimately rejects two theses about idiolects, or the languages of individuals. The first (recently espoused by Donald Davidson) is that reflection about communication involving "deviant" speech (like malaprops) shows that idiolects so vary with the moment that linguists and philosophers are wrong to assume there is a shared and stable

body of information that is, or would be, sufficient for communication. The second (advanced by Michael Dummett) is that the notion of an idiolect cannot be made sense of without appeal to a prior communal language. Against the first it is argued that most students of language do not make this assumption, which is, at any rate, not clearly cast into doubt by the communicational phenomena in question. Against the second, it is shown how one can analyze a speaker's being in linguistic error without countenancing anything more than linguistic beliefs of individual speakers at particular times, that is, without postulating a communal language.

It's Not that Easy Being Grue, ROBERT M. MARTIN

A "past-grue" concept is a concept like that of Nelson Goodman's "grue," but whose time *T* is past. We now know that nobody had any of the infinite number of past-grue concepts. This cannot be explained by their logical or psychological oddity or by experience before *T*; this shows that we have innate dispositions against certain concepts. But strangely this innate disposition can have no evolutionary explanation; it's just lucky. Neither does this provide any reason to think that nobody now associates the concept "grue" with the word "green."

Obligation and Human Nature in Hume's Philosophy,
MENDEL F. COHEN

Hume's views of the "foundation of morals" and of the nature of moral obligation are discussed in terms of the dispute between moral realists and sentimentalists (or emotivists) to which he means to contribute. It is argued that although Hume does not explicitly respond to attacks on Hutcheson's sentimentalism, his account of moral obligation is in fact such a response. It is shown that in spite of appearances to the contrary, Hume holds that moral judgments are fully universalizable and that this view together with his conception of both the nature of obligation and what he terms the practicality of morals leads him to insist that the moral sentiments of human beings across space and time are far more uniform than he knew them to be.

Hobbes's Persuasive Civil Science, TOM SORELL

Hobbes thought of his political doctrine as a science for keeping the peace and, in particular, as a means of persuading his countrymen to remain obedient to their government. His famous argument for the inevitability of war in the state of nature is part of his case for obedience. The article suggests that this argument is unpersuasive, but that, even without it, Hobbes can be said to have a persuasive civil science. At the end, a difficulty for Hobbes in the idea of a persuasive civil science is posed and resolved by reference to his concept of counsel.

PHILOSOPHICAL REVIEW
Vol. 99, No. 1, January 1990

The Priority of Reason in Descartes, LOUIS E. LOEB

Descartes is committed to *the priority of reason*: the proper use of sense-perception requires submitting the beliefs it generates to tests for correction by reason, but not vice versa. It is argued that this commitment cannot be explained with reference to Descartes' claim that whatever he clearly and distinctly perceives is true; Descartes' argument for the truth rule itself relies on the priority of reason. The constructive proposal of the article is that the priority of reason to sense-perception ultimately rests on the greater psychological irresistibility of reason, together with the adoption of permanence in belief as a doxastic objective. The contribution of these resources to Descartes' argument for the truth rule is explained. Finally, it is argued that the epistemological position here attributed to Descartes has interesting affinities with the epistemology of Hume.

Descartes on Time and Causality, J. E. K. SECADA

This article defends the rather prosaic claim that "Descartes had no views as to the continuity or discontinuity of time." Hence, it argues against both those that hold that Cartesian time is atomic (Wahl, Kemp Smith, Gueroult) and those that state it is continuous (Laporte, Beyssade). In doing that, however, the article examines the notion of continuity found in Late Scholastic authors (Suarez, Toledo). Contrary to mainstream opinion, it maintains that this Aristotelian notion is fundamentally not in conflict with Dedekind's mathematical account. Further, the article contends that Descartes' commentators have mistaken striking claims about causality for obscure assertions about the structure of time. These causal views are discussed and compared with some found in the Scholastic tradition, particularly in Aquinas and Suárez. In passing, the article also raises historiographical issues concerning the attribution of doctrines to past authors.

St. Thomas Aquinas on the Halfway State of Sensible Being,
PAUL HOFFMAN

PHILOSOPHICAL REVIEW
Vol. 99, No. 2, April 1990

Status of Content, PAUL A. BOGHOSSIAN

The article consists of a sustained *a priori* argument against irrealist conceptions of content. Part 1 explores the two different ways in which

one might seek to make sense of the claim that no property answers to a given predicate—error theories and nonfactualist theories. Part 2 outlines and clarifies what such irrealist conceptions look like when applied to content-full psychological idiom. Part 3 argues that these standard irrealist models are unstable when applied to content discourse. Part 4 attempts a redefinition of content irrealism that evades the outlined difficulties. Part 5 then argues (i) that even if this redefined position were stable it could not accommodate the standard motivations for content irrealism; and (ii) that there is every good reason to doubt its own stability.

The Humean Tradition, JOHN CARROLL

The article argues for the conclusion that, within the Humean tradition, no adequate account of universal laws is possible. There are two reasons for this conclusion. The first is that many of the most plausible attempts to give such an account fail. This, in part, is argued through criticisms of David Lewis's account and an account discernible in Brian Skyrms's *Causal Necessity*. The second reason for the anti-Humean conclusion is of a more general nature. An argument is advanced against the Humean tradition as a whole suggesting that Humeans have mistakenly presupposed that what generalizations are laws *supervenies* on non-nomic, nominalistic facts.

Of Primary and Secondary Qualities, A. D. SMITH

PHILOSOPHICAL REVIEW
Vol. 99, No. 3, July 1990

Truth Rules, Hoverflies, and the Kripke-Wittgenstein Paradox,
RUTH GARRETT MILLIKAN

A naturalist solution to the Kripke-Wittgenstein paradox is offered. The solution is based on a biological theory of the nature of an ability or competence. A result is that it is just as easy to explain how a speaker might exhibit through his practice a grasp of correspondence truth rules as to explain how he might grasp unification ones. This blocks one route of Putnam and Dummett's retreat from realism.

Democracy Without Preference, DAVID M. ESTLUND

However people might actually vote, a normative democratic theory must specify what proper democratic voting is. (This may or may not be the same as how one ought morally to vote; it says only how one ought, democratically, to vote.) A common, even hegemonic, account of democratic votes sees them as expressions of individual preference over social

alternatives. Different writers mean different things by preference, such as desires, interests, dispositions to choose, or reports of one of these three. The central thesis is that no preference interpretation of voting can jointly meet three reasonable conditions on the interpretation of democratic votes: activity—votes must be acts; advocacy—votes must have some practical valence, unlike most simple statements of fact; aggregability—votes must be on some common topic. There is an interpretation that succeeds where preference interpretations fail, namely, that votes are opinions about the common interest.

Branching Self-Consciousness, CAROL ROVANE

The paper considers whether Parfit's reductionist view of personal identity is internally coherent by examining his controversial thesis that persons can have something as good as ordinary survival without identity. There are objections to the thesis that Parfit does not address which derive from the nature of self-consciousness and the first person. The paper answers them by offering a "psychology of branching" in which important features of the first person are preserved in the inner lives of persons who survive without identity. It describes the conditions in which a person can anticipate, exhibit (self-)concern for, plan and live out a divided future, and it argues that these conditions parallel the actual conditions in which ordinary persons are able to do the same with respect to their nonbranching futures. However, these conditions preclude a *radical* form of reduction which would describe persons in *purely* impersonal terms.

PHILOSOPHY

Vol. 65, No. 253, July 1990

Coming To Be Without A Cause, T. D. SULLIVAN

Quentin Smith and others contend that modern science provides enough evidence to warrant the belief that the universe came to be without a cause. The author considers first the philosophical underpinnings of such claims: the Humean idea that the power which unites causes and effects lies in the determination of the mind to pass from the one to the other. The aim is not to refute this illusory view of causality, but to show that if we do know that at least one thing or event has an extra-mental cause, then it is impossible for the world to have arisen without a cause. Turning to Smith's argument from the Hawking-Penrose singularity theorems, it is contended that Smith succeeds in deducing the conclusion that the universe arose causelessly only by appealing to a concept of cause rejected by sensible opponents.

Knowing and Valuing Fairness, J. M. HINTON

The article consists of two parts. The first part is about valuing fairness, the second chiefly about not valuing it. Equally, the first part is

about knowing what fairness is, the second chiefly about not at all knowing and not knowing unless fairness is taken narrowly. It is argued that knowing what fairness is involves starting to value it. On whether the aforesaid states of not knowing involve knowably undesirable ignorance, two arguments for the affirmative—the answer hoped for—are criticized. Reference is made to Philippa Foot, R. M. Hare, Sabina Lovibond, Iris Murdoch, and Thomas Hardy.

A Kantian View of Moral Luck, A. W. MOORE

Although Kant's moral philosophy is closer to Aristotle's than is often supposed, there is, in Kant, non-Aristotelian hostility to the possibility of good moral luck. This is the starting point of the essay. The author argues that despite this, it is in the spirit of Kantianism to accept the possibility of bad moral luck—blameworthiness for what is not in the agent's control. Indeed it is in the spirit of Kantianism to regard all blameworthiness as being of that kind. The implications of this are traced out, partly with respect to Christianity, for there is something similar in St. Paul. But the author concludes by noting an element of *good* moral luck in orthodox Christianity to which Kant must remain firmly opposed.

The Aesthetics of Imperfection, ANDY HAMILTON

Post-Romantic musical aesthetics has idealized, in opposed ways, both composition and improvisation. Schoenberg found only gain in crafting an improvisation into a composition, whereas for Busoni there is a loss of purity. The growing composer-performer divide meant that by the nineteenth century improvisation was devalued; in Western art music, the performer interprets but no longer improvises. In opposition to this, there arose in jazz and other improvised forms a "Romantic ideal of improvisation" stressing: (i) pure transmission of the musical idea; (ii) free and individual self-expression of the performer; (iii) spontaneity and "improvised feel." (i) is largely chimerical and (ii) is overrated. But (iii) is important and expresses an "aesthetics of imperfection" in which unpredictability and immediacy counteract formal imperfection and where structure and preparation play a distinctive role.

Against Human Rights, JOHN O. NELSON

The article argues not against any particular right but against any particular right's being called a "human right." It is maintained that the ground for terming any right a "human right" is, in the last analysis, a deduction from human nature, or, more particularly, from human nature taken to have an essence, and that essence as being, as in the Western tradition, reason. It is maintained that human nature is in fact contradictory. From this premise are derived the various further contentions of the paper, such as that political insistence on the establishment of "human rights" is a form of genocide.

Universals and Creativity, JONATHAN WESTPHAL

PHILOSOPHY AND PHENOMENOLOGICAL RESEARCH
Vol. 50, No. 4, June 1990

Sartre: Successfully Lying to Oneself, JOSEPH S. CATALANO

The article attempts to show that Sartre's notion of consciousness allows us to see how we can believe in our lies to ourself. In this context, the author takes lying to oneself to be equivalent to self-deception and to certain forms of bad faith. While the article appears to be expository, it challenges the traditional interpretation of Sartre's philosophy. The author attempts to show that Sartre's notion of consciousness is richer than it is usually understood to be, and that it evolves throughout his philosophy.

Objective Value and Subjective States, JOSEPH MENDOLA

There has been a revival of interest in normative realism, the thesis that there are objective normative facts. This paper attempts to exhibit plausible examples of such facts. In particular, it argues that there are phenomenal states, qualia or sense data or raw feels, that are a crucial part of some pleasure and pain and that have, as a matter of objective fact, the normative properties of intrinsic value or disvalue. The paper develops an account of the nature of these normative properties and contrasts that account with C. I. Lewis's view of phenomenal value.

Aesthetic Versus Moral Evaluations, ALAN GOLDMAN

The first section of this paper attacks realist analyses of moral and aesthetic evaluations. The most plausible versions of realist analyses, which capture normative, expressive, and assertive functions of these evaluations, take a Humean relational form. But these versions ascribe incompatible properties to the same objects in the face of disagreements among critics that cannot be resolved. The second section contrasts the demand for coherence in ethics and aesthetics. Principles of evaluation are defined but dismissed for both areas. An ethical evaluator must, however, find a generalizable nonmoral difference for each difference between moral judgments, while this constraint does not hold for art critics. Moral critics respond to repeatable morally relevant properties, while art critics need not do likewise. A relativized version of the realist analysis is offered for aesthetic evaluations. The paper ends with a brief discussion of differences in taste and their implications for the analysis.

Talking Sense About Freedom, ANDREW WARD

Libertarianism, determinism, and compatibilism are the three main positions that attempt to analyze what we mean by, and to see whether we can ever provide a justification of, our belief in moral freedom (the

freedom required for moral responsibility). It is contended that although a well-known attempt to dismiss libertarianism on purely *a priori* grounds fails, it is nonetheless the case that, granted a reasonable empirical claim, neither the libertarian nor the determinist can give sense to our talk of moral freedom. Some version of compatibilism must succeed in capturing all that our talk can mean; and no good evidence has been offered for supposing that our belief in the actual occurrence of moral freedom is always unwarranted.

Brentano on "Unconscious Consciousness," SUSAN KRANTZ

In his *Psychology From an Empirical Standpoint*, Franz Brentano discusses at some length the question of whether or not it is possible to have an "unconscious consciousness" and concludes that it is not possible. This paper focuses on Brentano's use of the principle of the infallibility of inner perception in his argument in order to shed light on certain features of Brentano's psychology. By contrast with the view he argues against, it becomes plain that Brentano has discussed sense perception in what might be regarded as an idealistic or subjectivist mode. And yet Brentano insists that he is a realist, and not guilty of "psychologism," precisely because he adheres to the infallibility of inner perception and to the impossibility of an unconscious consciousness. Thus one encounters in Brentano a version of what may be called phenomenological realism.

Philosophy After Wittgenstein and Heidegger,
CHARLES GUIGNON

PHRONESIS

Vol. 34, No. 3, 1989

Xenophanes on the Moon: A doxographicum in Aëtius,
DAVID T. RUNIA

The article uses the view of Xenophanes on the moon recorded by the doxographer Aëtius (21A43 DK) as an example of the difficulties involved in using the doxographical tradition for the reconstruction of the thought of the pre-Socratic philosophers. According to Diels, Xenophanes' doxa is that the moon is "compressed cloud," but Diels suppresses the alternative reading that the moon is "fiery cloud." Which reading is the correct one? In order to answer the question it is necessary not only to examine the various sources upon which the reconstruction of Aëtius's work is based, but also to gain an understanding of the method he used in compiling his collection of *placita*. The vital clue is provided by the observation that for the doxographer the opinions are more important than the philosopher who holds them. During the course of the article an additional A-fragment of Heraclitus is also discovered.

*"All is Number?" "Basic Doctrine" of Pythagoreanism
Reconsidered, LEONID ZHMUD'*

The main question posed in this article is: from what sources is it known that Pythagoras and his followers deduced all the world from numbers? An analysis of the sources reveals that in early Pythagoreanism number philosophy is altogether absent. For Philolaus—the first Pythagorean, who introduced number into philosophy—it was the mean of cognition, but not *materia mundi*. Nor Philolaus, nor anyone else from the Pythagoreans ever stated that "all is number." This idea appears for the first time in Aristotle. Aristotle exposes the Pythagorean philosophy in a very strange way: quite separately treated are views of individual philosophers (from Alcmaeon to Archytas), who in no place are called Pythagoreans and are never connected with number philosophy. Also treated separately is the so-called "general Pythagorean" number doctrine, belonging to no person. When speaking about it, Aristotle never gives any name. The analysis of this doctrine shows that its author was Aristotle himself.

Gab es eine dialektische Schule? KLAUS DÖRING

Until recently, students of ancient philosophy have generally believed that Diodorus Cronus was a member of the Megarian school founded by Socrates' pupil Euclides of Megara. In 1977, however, David Sedley claimed that Diodorus should be associated with the so-called Dialectical school. The article argues against this view. The main results are: (1) There are no testimonies which suggest that we should distinguish between Megarians and Dialecticians. (2) The so-called Dialectical school never existed; it is a construct of ancient historians of philosophy. (3) If we understand by "philosophical school" an association of philosophically interested men, united over several generations by a stock of basic beliefs, then there never was a Megarian school. What there was were Megarians, men who had received their main intellectual formation under Euclides himself or from one of his immediate or indirect pupils. In this sense Diodorus surely belongs to the Megarians.

Chrysippus and the Placita, JAAP MANSFELD

PHRONESIS
Vol. 35, No. 1, 1990

The Interpretation of Plato's Crito, DAVID BOSTOCK

The arguments of Plato's *Crito* appear at first sight to require obedience to any and every law. The article discusses three interpretations which attempt to avoid this result, and argues that none of them can be accepted. Finally it offers some grounds for saying that Plato did genuinely intend to claim that absolutely all laws should be obeyed.

Logical Atomism in Plato's Theaetetus, G. RYLE

A famous, deeply influential but long unpublished paper read to the Oxford Philological Society in 1952, this essay is Ryle's account of the entire dialogue with special emphasis on "Socrates' Dream" and extensive comparisons with early G. E. Moore, Russell, and Wittgenstein's *Tractatus*.

Lectio Difficilior: Le système dans la théorie platonicienne de l'âme selon l'interprétation de M. Gueroult, CLAUDE GAUDIN

Starting from two very systematic papers of Gueroult, the article requests a parallel reading. It argues that the text from *Laws* (893 b-899 b) and that of *Phaedo* throw a new light on each other. According to Gueroult they are submitted to the same architectonic order in spite of their very different features. That needs to be proved (1) by the dialectical construction of the former and (2) by the steps of argumentation in the latter which reveal the soul's composition by the highest Forms. Can the word "dialectics" be understood in its constructive meaning (applied to the world's motions) as well as in its usual sense? Indeed, in *Phaedo*, the human soul is at once the tool and the matter of dialectics. The title of the article refers to these intercrossing and reflecting interpretations.

Aristotle and the Mind-Body Problem, ROBERT HEINAMAN

This paper argues that Aristotle's position on the mind-body problem is probably best characterized as dualism. The issue is discussed in relation to Aristotle's views about (1) the soul and (2) mental events. (1) The soul, for Aristotle, cannot be a body since it is changeless. Nor is it the body's organization but rather, as Alexander of Aphrodisias said, an immaterial substance supervening on that organization. This looks like dualism but the classification is questionable, not because of unclarity about Aristotle's position but because of unclarity about what the distinction between the physical and the nonphysical is supposed to be. (2) At least many mental events, it is argued, are form-matter composites of an activity in the soul and change in the body. An activity occurring in an immaterial subject is presumably an event of a kind unacceptable to physicalists. A final section argues against a functionalist interpretation of Aristotle's account of mental events.

RATIO

Vol. 2, No. 2, December 1989

Desire and Its Discontents, IVAN SOLL

The essay critically examines some arguments and rhetoric central to the traditional position that a life in which the pursuit and satisfaction

of desires occupies a central place is doomed to frustration and failure. Contrary to this, it maintains that a life in which desires are satisfied temporarily only to recur again and again is arguably better than one not beset by wants and desires. On the way to this conclusion, two German philosophers of the nineteenth century, who argued for the inevitable frustration of all desire but from radically different conceptions of what constitutes the satisfaction of desire, are considered. Despite disagreeing with both of their conclusions, the essay finds Hegel's view that the satisfaction of desire occurs in the process of attaining it preferable to Schopenhauer's view that the satisfaction of a desire consists in a state in which the desire has been removed. It is an argument for the life of desire and against pessimism.

RATIO

Vol. 3, No. 1, June 1990

Morality and Justice in Kant, MARTHA KLEIN

Kant's insistence that inclination cannot—and that duty must—form the basis of a truly moral motive has been found both puzzling and outrageous. The mystery is dispelled when one realizes that these claims spring, as Bernard Williams suggests, from a commitment to justice. But it is necessary to show *how* such a commitment could have motivated these claims, since Kant's explicit arguments contain no references to justice. It is argued that Kant provides three *implicit* arguments involving problems of justice, to which the claims about duty and inclination can be seen as attempted solutions. It is also argued that we can solve these problems without having to resort, as Kant does, to the belief that duty-inspired motivation has its source in a noncausal, nonspatio-temporal world. The solution proposed involves using one aspect of Kant's conception of duty in a radically non-Kantian way.

The Metaphysics of Communism, YUVAL LURIE

There is a recognized difficulty in discovering a Marxian justification of communism. The attempts by various philosophers to locate such a justification in Marx's conception of justice or history have not been very successful. In this article it is suggested that the sought-after justification lies in Marx's conception of communism as a *metaphysical* ideal. On this conception, a communist revolution is a metaphysical praxis. By abolishing private property it provides (through action) a practical solution to a host of age-old metaphysical contradictions. In contrast, the liberal praxis can be viewed now as an attempt to work within metaphysical contradictions rather than as an attempt to resolve them.

Stroud and Williams on Dreaming and Scepticism,
ANDREW REIN

The article concerns a particular argument advanced by Stroud in his book *The Significance of Philosophical Scepticism*. Stroud's argument is that if we accept Descartes' requirement that in order to know that *p* (for suitable *p*), we must know that we are not dreaming that *p*, then we can never know that *p* because the acceptance of Descartes' requirement precludes our ever knowing that we are not dreaming that *p*. An argument advanced by Bernard Williams in an appendix to his book on Descartes is then discussed and applied to Stroud's problem. The conclusion reached is that the acceptance of Descartes' requirement is consistent with our being able to know, while awake, that we are not dreaming and hence that we can accept Descartes' requirement without thereby surrendering to the skeptic.

Davidson and Hare on Evaluations, THOMAS SPITZLEY

The article has two parts. In the first Davidson's view of evaluations is discussed: what is the meaning and function of *prima facie*, "all-things-considered," and "sans phrase" judgments, and what is the role of his principle of continence? In the (shorter) second part Davidson's insights are used to elucidate the position of Hare: What is it to treat a moral judgment as a *prima facie*, or as a critical moral judgment, and when is a moral judgment a critical moral judgment?

Can Emotivism Sustain a Social Ethics? NICHOLAS UNWIN

This article argues that emotivism and related theories do not have the pernicious, anti-social consequences often attributed to them. Indeed, it goes further and argues that it is *only* when ethical judgments are construed as expressions of subjective preference that a proper relationship between society and the individual can be sustained. The distinction between *expressing* and *reporting* an attitude is examined in depth, and is analyzed in terms of different types of language games. Moral objectivity is explored, as are the connections between the proposed theory and moral realism and moral authoritarianism. The "Frege problem" of unasserted contexts is given a tentative solution. The concept of *internalization* is examined, as is the notion of democratic participation. A conception of ethics is defended whereby moral judgments become essential to interpersonal communication in such a way as to make moral skepticism absurd.

DOCTORAL DISSERTATIONS, 1989-1990*

The University of Alberta
(23) (15) (18)

The University of Arkansas
(15) (11) (9)

Boston College
(112) (73) (18)

- DAVID W. AIKEN, "Sharp Compassion: Kierkegaard on the Problem of Sin." Adviser: Peter J. Kreeft.
ALLEN S. HANCE, "Person and Law in Hegel's Jena Writings." Adviser: Jacques Taminiaux.
PAULETTE W. KIDDER, "The Idea of the Good and Practical Philosophy in the Thought of Hans-Georg Gadamer." Adviser: Frederick G. Lawrence.

Boston University
(42) (38) (17)

- HARRY LEE, "Exploration of Reflexivity." Adviser: Judson Webb.
JOHANNA MEEHAN, "Justice and the Good Life: An Analysis and Defense of a Communicative Theory of Ethics." Adviser: Bernard Elevitch.

The University of British Columbia
(30) (25) (14)

- JOAN BRYANS, "Direct Reference and Belief Attributions." Adviser: Tom Patton.
DOUGLAS SIMAK, "Acts, Agents and Moral Assessment." Adviser: Earl Winkler.

* The three figures below each institution's name refer to (1) the number of graduate students enrolled in its philosophy department, (2) the number of "full-time" graduate students as the term is understood by the institution, and (3) the number of faculty members teaching in the graduate program.

Brown University
(30) (27) (13)

- DAVID BENNETT, "Psychophysical Laws: A Framework." Adviser: Ernest Sosa.
 MICHAEL GILLETTE, "Paternalism in Psychiatric Medicine: A Philosophical Perspective." Adviser: Dan W. Brock.
 DAVID B. MARTENS, "Some Descriptive Theories of First-Person Thoughts." Adviser: Ernest Sosa.

Bryn Mawr College
(3) (0) (4)

- PATRICE DIQUINZIO, "Individualism and Communitarianism in Contemporary Political Philosophy." Adviser: S. Salkever. Awarded in 1989.
 WALTER LAMMI, "The Right-Heideggerian Legacy in America." Adviser: G. R. Kline. Awarded in 1989.

The University of Calgary
(16) (16) (17)

The University of California, Berkeley
(43) (38) (22)

- KIRK LUDWIG, "Skepticism and Externalist Theories of Thought Content." Advisers: Donald Davidson, Barry Stroud.

The University of California, Davis
(21) (18) (14)

The University of California, Irvine
(32) (32) (16)

- PAUL R. GRAVES, "Simple Sentences and Atomic Formulae." Adviser: T. Parsons.

The University of California, Los Angeles
(42) (35) (15)

- MICHAEL ROBERT GEHMAN, "What is a Logically Correct Argument?" Adviser: David Kaplan.
 MARTIN HAHN, "Intentionality, Direct Reference, and Individualism." Adviser: Tyler Burge.
 JONATHAN MICHAEL WILWERDING, "Could Cats Turn Out To Be Robots?" Adviser: Tyler Burge.

The University of California, Riverside
(33) (32) (13)

DAVID W. BARLOW, "Seeing and Hitting the Target: Aristotle's Aims in the *Ethics*." Adviser: David K. Glidden.

RICHARD LANGER, "The Right to Autonomy and the Right to Life." Adviser: John Martin Fischer.

The University of California, Santa Barbara
(28) (21) (10)

CHRISTOPHER BELSHAW, "Sceptical and Causal Reasoning." Adviser: Nathan Salmon.

The University of California, San Diego
(40) (39) (18)

MICHAEL BISHOP, "Naturalizing the Philosophy of Science." Adviser: Philip Kitcher.

MICHAEL MENDELSON, "Secundum Res Gestas: Man and Nature in Augustine's *De Genesi ad Litteram*." Adviser: Edward Lee.

MARK STARR, "Natural Kinds in Aristotle's Categories and the Argument from Design." Adviser: Georgios Anagnostopoulos. Awarded in 1989.

The Catholic University of America
(91) (37) (20)

TERRY R. HALL, "Civil Association and the Common Good in the Philosophy of Michael Oakeshott." Adviser: Robert Sokolowski.

KEVIN E. KENNEDY, "The Self and I: An Investigation of the Metaphysics of Personal Responsibility." Adviser: Daniel Dahlstrom.

ROBERT J. MCTEIGUE, "Exploring the Grounds of Commitment: An Examination of Faith and Reason." Adviser: Paul Weiss.

ROBERT J. SPITZER, "A Study of the Nature of Objectively Real Time." Adviser: Paul Weiss.

The University of Chicago
(67) (52) (19)

MARTIN COX, "Idealism and the Unity of the Proposition." Adviser: Leonard Linsky.

STEPHEN MENN, "Descartes and Augustine." Adviser: Daniel Garber.

GREGORY SHORE, "The Theory and Strategy of Large-Scale Violent Conflict." Adviser: Russell Hardin.

The University of Cincinnati
(30) (20) (14)

The City University of New York
(130) (100) (36)

- JAMES DANAHER, "John Locke on Real and Nominal Essence." Adviser: Charles Landesman.
 JORAM GRAF HABER, "Forgiveness: A Philosophical Essay." Adviser: Virginia Held.
 AKIO KIKAI, "Philosophical Foundation for the Humanistic Ontology of Language." Adviser: Marx Wartofsky.
 JONATHAN LANG, "How Is A Discourse On the Self Possible?" Adviser: Marx Wartofsky.
 ROSAMOND RHODES, "Hobbes' Ethical Theory: A New Reading and Its Use." Adviser: James Muyskens.

The University of Colorado
(52) (42) (21)

- SEAN MARIE O'BRIEN, "On Quine's Comparison of Scientific and Ethical Methodologies." Adviser: James W. Nickel.
 RENÉ TRUJILLO, JR., "The Social Emergence of Self and World As the Basis for Bridging Relativism and Realism: George Herbert Mead." Adviser: Gary H. Stahl.
 SANDRA MARGRETHE GUDMUNDSEN, "Communicative Action and Consensus: The Case of the Abortion Question." Adviser: Steve Fuller.

Columbia University
(79) (76) (17)

- YOSSI DAHAN, "Political Equality in a Democracy." Adviser: S. Morgenbesser. Awarded in 1989.
 STEVEN V. HICKS, "The Concept of the Person in Hegel's System." Adviser: R. Geuss.
 MICHAEL B. SHENEFELT, "The Passion for Generalizing." Adviser: T. Pogge.
 PETER P. SORDILLO, "An Identity Theory of Causation." Adviser: B. Berofsky.
 ARTHNEL A. TOMLINSON, "Investigation into Cosmic Consciousness." Adviser: J. Walsh.
 DAVID S. WEBERMAN, "The Pragmatic Turn in Early Heidegger." Adviser: C. Larmore.

The University of Connecticut
(21) (18) (16)

- STUART W. CEDRONE, "The Romantic Love Relation." Adviser: Jerome Shaffer.

Cornell University
(33) (33) (17)

- RICHARD A. FARR, "Social Explanation: A Farewell to Hobbes." Adviser: A. Wood.
- RICHARD A. MORAN, "Attitudes Toward the Self." Adviser: S. Shoemaker.
- ALLEN D. ROSEN, "Kant's Theory of Justice: Basic Elements and Political Principles." Adviser: A. Wood.
- STEPHEN J. SULLIVAN, "Moral Realism and Naturalized Metaethics." Adviser: N. Sturgeon.
- HUA TERENCE TAI, "The Objective and Subjective Deductions in Kant's *Critique of Pure Reason*." Adviser: A. Wood.
- JOHN A. ZUPKO, "John Buridan's Philosophy of Mind: An Edition and Translation of Book III of his 'Questions on Aristotle's *De anima*' (Third Redaction), with Commentary and Critical and Interpretative Essays." Adviser: N. Kretzmann.

Duke University
(15) (15) (10)

Duquesne University
(60) (40) (8)

- CHENG-YUN TSAI, "Intersubjectivity: Husserl and Merleau-Ponty." Adviser: John Scanlon. Awarded in 1989.

Emory University
(43) (36) (12)

- PHILIP LANE DREW, JR., "The Function of *Hypokeimenon* in Aristotle's Language of Propositions, Predication and Philosophy of Nature: An Inquiry Based on Earlier Works." Adviser: Richard Patterson.
- RONALD LEE JACKSON, "The Cassirer-Heidegger Debate: A Critical and Historical Study." Adviser: Donald Verene.
- JUNG SOON PARK, "Contractarian Liberal Ethics and the Theory of Rational Choice." Adviser: Nicholas Fotion.
- CLAUDE N. PAVUR, "How One Lets Nietzsche Become Who He Is: Interpreting Nietzsche as a Humanist." Adviser: Walter Adamson. Awarded by the Graduate Institute of the Liberal Arts.
- VANESSA PARKS RUMBLE, "Reflections of Immediacy: The Anatomy of Self-Deception in Kierkegaard's Early Writing." Adviser: Thomas R. Flynn.
- PATRICIA M. VAN TUYL, "Becoming Human: Hegel's Vision of a Good Life." Adviser: Rudolf A. Makkreel.

The University of Florida
(12) (5) (8)

Florida State University

(27) (18) (9)

STEPHEN HARRIS, "An Interrogative Model of Inquiry." Adviser: Jaako Hintikka.

RAMON ROMERO, "The New Marxism of Jose Carlos Mariategui." Adviser: Donald C. Hodges.

Fordham University

(133) (117) (22)

ANDREW J. CHRUCKY, "Critique of Wilfrid Sellars' Materialism." Adviser: Christopher Gowans.

FARZAD MAHOOTIAN, "The Relevance of Myth to Science." Adviser: Elizabeth M. Kraus.

PETER A. WIDULSKI, "Economics and Freedom in Hegel's *Philosophy of Right*." Adviser: Robert O. Johann.

Georgetown University

(89) (73) (23)

P. SVEN ARVIDSON, "Limits in the Field of Consciousness." Adviser: John B. Brough.

DAVID DION DEGRAZIA, "Interests, Intuition, and Moral Status." Adviser: Tom L. Beauchamp.

JEFFREY PAUL KAHN, "The Principle of Nonmaleficence and the Problems of Reproductive Decision Making." Adviser: Tom L. Beauchamp.

MARK STEVEN MITSOCK, "Husserl on Modern Philosophy: A Study of *Erste Philosophie*." Adviser: John B. Brough.

MAURA ANN O'BRIEN, "A Moral Voice in Public Policy: Responding to the AIDS Pandemic." Adviser: LeRoy Walters.

BRUCE DAVID WEINSTEIN, "The Possibility of Ethical Expertise." Adviser: Robert Veatch.

The University of Georgia

(20) (17) (10)

RITA C. HINTON, "The Arguments for Emanation: Plotinus as Rational Philosopher." Adviser: Frederick Ferré.

The University of Guelph

(33) (23) (19)

DAVID BAXTER, "Marxian Concepts of Epochal Transition." Adviser: John McMurtry.

JOHN CLIFTON, "Racism: Persuasive Definition and Linguistic Choice." Adviser: Jay Newman.

PAUL GALLINA, "Freedom and Necessity: Antonio Gramsci's Philosophy of Praxis." Adviser: John McMurtry.

Harvard University
(33) (33) (15)

- THOMAS CARLSON, "The Pragmatic Individual: From Kant to James."
Advisers: Hilary Putnam, Israel Scheffler.
PETER DE MARNEFFE, "Liberalism and Education." Advisers: John Rawls,
Thomas M. Scanlon.

The University of Illinois, Chicago
(38) (30) (13)

- ROBERT HOLLAND, "The Philosophical Problems of Applied Mathematics."
Adviser: M. Friedman.
ALAN RICHARDSON, "Epistemology Purified: Objectivity, Logic and Experience in Logical Structure of the World." Adviser: M. Friedman.
EDWARD SHERLINE, "Moral Theories and Paradox of Deontology." Adviser: S. Kagan.
BYUNG-HONG SON, "Philosophical Issues in Modal Logic." Adviser: A. Gupta.
ANITA SUPERSON, "The Self-Interest Based Contractarian Response to the Why-Be-Moral Skeptic." Adviser: D. Copp.
THOMAS WEIGERT, "Logical Calculi for Reasoning in the Presence of Uncertainty." Adviser: A. Gupta.

The University of Illinois, Urbana-Champaign
(41) (35) (18)

- VICTOR EUGENE REPPERT, "Physical Causes and Rational Belief: A Problem for Materialism?" Adviser: Hugh S. Chandler.

Indiana University
(53) (53) (13)

- GONZALO J. ARMIJOS, "Marxism, Pragmatism, and Historical Realism: An Epistemological Appraisal." Adviser: Milton Fisk.
MONICA HOLLAND, "Beliefs Based on Emotional Reception: Their Formation, Justification and Truth." Adviser: Karen Hanson.
EDWIN DAVID MARES, "The Logic of Fictional Discourse." Adviser: J. Michael Dunn.
ADRIANO PALMA, "Indexicality." Adviser: Hector-Neri Castañeda.

The University of Iowa
(31) (30) (10)

- GRANT C. STERLING, "Objectivism and Rational Action." Adviser: Richard Fumerton.
DENNIS J. SWEET, "Objective Knowledge and Self-Consciousness: The Role of Kant's Theory of Apperceptive Self-Identity in the *Critique of Pure Reason*." Advisers: Phillip Cummins, Guenter Zoeller.

Johns Hopkins University
(37) (29) (9)

- IN-RAE CHO, "Quantum Mechanics, Propensities, and Realism." Advisers: Peter Achinstein, Gordon Feldman, Robert Rynasiewicz.
 JULIA L. DRIVER, "The Virtues of Ignorance." Advisers: J. B. Schneewind, Susan Wolf.
 TARA A. SMITH, "The Inflation of Rights." Advisers: Richard Flathman, Susan Wolf.

The University of Kansas
(48) (45) (16)

Loyola University of Chicago
(83) (35) (31)

- MIGUEL DE BEISTEGUI, "Heidegger and the Question of the Political." Adviser: John Sallis.
 RICHARD FINDLER, "The Problem of Imagination for Subjectivity: Kant and Heidegger on the Issue of Displacement." Adviser: John Sallis.
 JOHN PROTEVI, "The Economy of Time: Heidegger and Derrida on Aristotle, Time and Metaphysics." Adviser: John Sallis.
 SHARON SYTSMA, "Ethical Internalism and Externalism." Adviser: David Ozar.

Marquette University
(61) (42) (29)

- ANTHONY F. BEAVERS, "The Metaphysics of Affectivity and Ethical Responsibility." Adviser: John D. Jones.
 MARIA T. CARL, "The First Principles of Natural Law Ethics: A Study of the Moral Theories of Aristotle and Saint Thomas Aquinas." Adviser: Roland J. Teske.
 PAUL W. CHAMBERLAIN, "The Development of the Concept of Liberty in British Philosophy from 1640 to 1863: Hobbes, Locke and Mill." Adviser: William C. Starr.

The University of Maryland
(49) (45) (20)

- STANLEY GODLOVITCH, "Philosophical Problems of Musical Performance." Adviser: Jerrold Levinson.
 BRIAN HAUGH, "Non-monotonic Formalisms for Commonsense Temporal-Causal Reasoning." Adviser: Frederick Suppe. Awarded in 1989.
 KEVIN JACKSON, "Interpreting Human Rights Law: A Test Case for Law-as-Integrity." Adviser: Conrad Johnson.

The University of Massachusetts
(64) (50) (16)

- PAUL P. CHRISTOPHER, "Just War Theory: An Historical and Philosophical Analysis." Adviser: Gareth Matthews.
 BETH A. DIXON, "Self-Attributed Belief and Privileged Access." Adviser: Linda Wetzel.
 ROBERT LEWIS FRAZIER, "Right-Making Characteristics and Morally Right Acts." Adviser: Robert Paul Wolff.
 TAMSIN EYWOR LORRAINE, "Gender, Identity and the Production of Meaning." Adviser: Ann Ferguson.

McMaster University
(55) (40) (17)

- DANIEL AHERN, "Nietzsche as Cultural Physician." Adviser: J. Amstutz.
 KEVIN HALION, "Speech Act Theory and Deconstruction." Adviser: B. Allen.
 JOHN VAN BUREN, "The Young Heidegger." Adviser: G. Madison.

The University of Miami
(27) (18) (9)

- ELLEN R. KLEIN, "Should Epistemology be Naturalized? A Metaepistemological Investigation." Adviser: Harvey Siegel.

The University of Michigan
(50) (50) (20)

Michigan State University
(45) (32) (22)

- STEVEN NOFSINGER, "John Dewey's *Lectures on the Theory of Logic*." Adviser: Donald F. Koch.
 CAROL WINIFRED SLATER, "Naturalizing Semantics: Fodor and Dretske on the Content of Psychological States." Adviser: Richard J. Hall.

The University of Minnesota
(57) (57) (19)

- LUC BOVENS, "Reasons for Preferences." Adviser: H. E. Mason.
 INKYO CHUNG, "A Study in Paradoxes and Type-Free Theories." Adviser: C. Anthony Anderson.
 LARRY CROCKETT, "The Turing Test, the Frame Problem, and Computer Simulation of Human Mentality." Adviser: Keith Gunderson.
 MICHAEL DEGNAN, "Aristotle's Defense of the Principle of Non-Contradiction." Adviser: Norman Dahl.

RICK FAIRBANKS, "Belief, Deception and Self-Deception." Adviser: Douglas Lewis.

JOEL WILCOX, "On the Nature and Novelty of *Psyche* in Heraclitus." Adviser: Jasper Hopkins.

ARTHUR ZUCKER, "Reductionism and the New Wholism." Adviser: Arthur Caplan.

The University of Missouri at Columbia

(32) (29) (8)

Université de Montréal

(117) (48) (20)

PIERRE GENDRON, "La rationalité de la démarche expérimentale d'après l'oeuvre du physiologiste Claude Bernard." Advisers: Y. Gauthier, O. Keel. Awarded in 1989.

JEAN-ERNEST JOOS, "La fondation de l'Etat dans la pensée kantienne." Adviser: G. Kortian. Awarded in 1989.

LUCIEN PELLETIER, "L'anticipation utopique chez Ernst Bloch." Advisers: J. Poulain, G. Raulet.

SERGE THERIEN, "La conception de la liberté chez Friedrich Anton Hayek." Adviser: G. Lane.

The University of Nebraska

(30) (21) (12)

The University of New Mexico

(40) (18) (11)

The New School for Social Research

(98) (40) (12)

New York University

(32) (10) (11)

The State University of New York at Binghamton

(22) (16) (17)

The State University of New York at Buffalo

(50) (50) (19)

CHRISTOPHER L. PINES, "Feuerbach, The French Enlightenment, and Marx's Concept of False Consciousness." Adviser: James Lawler.

The State University of New York at Stony Brook
(78) (44) (27)

- ELIZABETH BAETEN, "Nature, Myth and Culture." Adviser: Robert C. Neville. Awarded in 1989.
- JAY EVERETT, "Freud and DuPrel: Psychoanalysis, Magic and Mediation." Adviser: Edward S. Casey.
- JAMES HATLEY, "Impossible Mourning: Disaster and the Memory of Transcendent Loss." Adviser: Mary C. Rawlinson.
- KEVIN MACDONALD, "Writing in Active: Nietzsche's Address to the Individual." Adviser: David B. Allison.
- BRIAN SEITZ, "The Production of Political Representations." Adviser: Mary C. Rawlinson. Awarded in 1989.
- DAVID STRONG, "To the Things Themselves: Technology, Metatechnology, and the Environment." Adviser: Edward S. Casey.
- DANIEL TATE, "Hermeneutics and Aesthetics: Heidegger on Art." Adviser: Edward S. Casey.
- SCOTT WEINER, "The Logic of 'The Inner' and 'The Outer': A Critical Reinterpretation of the *Umkehrung* of Hegel." Adviser: Robert C. Neville. Awarded in 1989.

The University of North Carolina at Chapel Hill
(36) (36) (20)

- PAUL R. BERCKMANS, "Linguistic Action, Reference, and Nonverbal Communication." Adviser: William G. Lycan. Awarded in 1989.
- FRANK FARNUM BROWN, JR., "In the Beginning and Not Before: The Architectonics of *On Certainty*." Adviser: Jay F. Rosenberg.
- BARBARA SUSAN KRASNER, "Hegel, Marx, and the Concept of Alienation." Adviser: Gerald J. Postema. Awarded in 1989.
- DAVID BENJAMIN RESNIK, "The Methodology of Biological Science." Adviser: William G. Lycan.
- MARK RISJORD, "Semantics, Culture, and Rationality: Toward an Epistemology of Ethnography." Adviser: Richard Zaffron.
- CASEY SWANK, "Epistemic Value." Adviser: William G. Lycan. Awarded in 1989.

Northwestern University
(36) (30) (14)

- NATALIE B. ALEXANDER, "Presence and Deferral: Derrida's Critique of Husserlian Internal Time-Consciousness." Adviser: Samuel J. Todes.
- DAVID J. BULLER, "Some Problems With Cognitivism: Confirmation, Individuation and Realism." Adviser: Arthur Fine.
- DAVID H. CALHOUN, "Egoism, Friendship, and Aristotle." Adviser: Reginald E. Allen.
- ANDREW F. CUTROFELLO, "Derrida's Critique of Hegelian Concepts of Identity and Difference as Illustrated in Hegelian Discussions of the Family and Derrida's *Glas*." Adviser: Samuel J. Todes.
- MATTHEW J. POSTH, "Free Will and Realism." Adviser: Samuel J. Todes.

The University of Notre Dame

(57) (52) (33)

VICKI LYNN JENKINS, "Paradox and the Ways of Religion." Adviser: Frederick J. Crosson.

ROBERT C. O'CONNOR, "Abductive Inference to Theological Realism." Adviser: Philip L. Quinn. Awarded in 1989.

SHERWOOD PAUL TIDMAN, "The Epistemology of Modality." Adviser: Thomas V. Morris.

The Ohio State University

(61) (46) (23)

DAVID GILBOA, "The Economic Conditions of Political Liberty." Adviser: Richard T. Garner.

CHAMU NAMASIVAYAM, "On Some Aspects of Theoretical Simplicity." Adviser: George Pappas.

BARBARA CAROLINE SCHOLZ, "Kripke's Wittgensteinian Paradox and Causal Theories of Reference." Advisers: Stewart Shapiro, George Schumm.

ANDREW MICHAEL SWIFT, "Hobbes' Secular Command Theory of Obligation." Adviser: Bernard Rosen.

The University of Oregon

(30) (25) (8)

DANIEL ATHEARN, "Prospects for Causal Explanation Outside of Mechanism." Adviser: Cheyney C. Ryan.

The University of Ottawa

(60) (44) (28)

CLAUDE GERMAIN, "Epistemic Individuality in the Study of Education." Adviser: C. Charron.

DAVID LEA, "A Critical Evaluation of Two Fundamental Forms of Liberalism." Adviser: L. Armour.

NKIRU NZEGWU, "Encounters in Aesthetic Appreciation." Adviser: L. Armour. Awarded in 1989.

STEPHEN ROCKER, "Hegel's Rational Religion—The Validity of Hegel's Argument for the Identity in Content of Absolute Religion and Absolute Philosophy." Adviser: T. Geraets.

JAMES THOMAS, "The Identity and Diversity of Attributes in the Absolute Idealism of Spinoza." Adviser: L. Armour.

BRENDA WIRKUS, "The Philosophical Concept of Legal Capacity: A Reconceptualization of the Reason/Will Relationship." Adviser: L. Armour. Awarded in 1989.

The University of Pennsylvania

(33) (24) (12)

DONALD BECKER, "Kant's Argument for the Necessity and the Legitimacy of the State." Advisers: Paul Guyer, Samuel Freeman.

STEPHEN P. STEINBERG, "Aron Gurwitsch and the Interpretation of Husserl." Adviser: Izchak Miller.

WILLIAM O. STEPHENS, "Stoic Strength: An Examination of the Ethics of Epictetus." Adviser: Charles Kahn.

The Pennsylvania State University

(53) (28) (16)

SCOTT R. HEMMENWAY, "Platonic Myth and the Archaeology of the Polis." Advisers: David R. Lachterman, Stanley H. Rosen.

FELICIA E. KRUSE, "The Scope of Semiosis in Peirce's Philosophy." Adviser: Carl R. Hausman.

EDWARD S. PETRY, JR., "Self-Control in the Philosophy of Charles S. Peirce." Advisers: Carl R. Hausman, Robert S. Corrington.

The University of Pittsburgh

(53) (49) (19)

ROMAN BONZON, "Respecting Realism." Adviser: Joseph L. Camp, Jr.

JOSHUA GOLDING, "Pragmatic Justification of Faith in God." Adviser: Nicholas Rescher.

MARC LANGE, "The Design of Scientific Practice: A Study of Physical Laws and Inductive Reasoning." Adviser: Robert Brandom.

LISA PARKER, "Moral and Legal Responsibilities: The Problem of Strict Liability." Adviser: Kurt Baier.

Princeton University

(33) (29) (19)

RANDOLPHE K. CLARKE, "An Agent-Causal View of Free Will." Adviser: G. Harman.

GREGORY HARDING, "The Stark Dogma: Impoverished Conceptions of the Physical." Adviser: G. Harman.

EDWARD P. THOMSON, "Evolutionary Epistemology and Anti-Realism." Adviser: B. van Fraassen.

Purdue University

(50) (36) (17)

JAMES PETER CADELLO, "Nietzsche in America: The Spectrum of Perspectives 1895-1925." Adviser: Calvin O. Schrag.

JEFFREY JORDAN, "Rationality and Religious Experience: A Study of the Epistemic Stature of Religious Experience." Adviser: William L. Rowe.

RUTH PORRITT, "A Dialogic Reading: The Inter-Intra Analysis of Poetic and Philosophical Texts." Adviser: Calvin O. Schrag.

JACK PURCELL, "Heidegger's Early Ontology: Rethinking the Ground." Adviser: Calvin O. Schrag. Awarded in 1989.

SARANINDRA TAGORE, "Reading Hume With Husserl." Adviser: Manfred Kuehn.

Queens University
(35) (32) (17)

Rice University
(20) (20) (11)

SUSANNA L. GOODIN, "Locke's Scepticism About Natural Science." Adviser: M. A. Kulstad.

S. KAY TOOMBS, "The Meaning of Illness: A Phenomenological Approach to the Patient/Physician Relationship." Adviser: S. G. Crowell.

The University of Rochester
(39) (39) (11)

MARK DROST, "An Adverbial Theory of Mental Imagery." Adviser: Richard Feldman.

ELIZABETH LAIDLAW-JOHNSON, "A Combined Doctrine of Knowledge for Plato." Adviser: Deborah Modrak.

PAUL SCATENA, "An Epistemic Theory of Pain." Adviser: John Maunsell.

AMY STEINBERG, "When Does Harm Outweigh the Benefits of Free Speech?" Adviser: Deborah Modrak.

Rutgers, The State University of New Jersey
(51) (35) (28)

DAVID G. JOHNSON, "Ethical Disbelief." Adviser: Richard Henson.

UMA NARAYAN, "Offensive Conduct: What Is It and When May It Be Criminalized." Adviser: Douglas Husak.

Saint Louis University
(27) (22) (12)

The University of Southern California
(36) (30) (15)

Southern Illinois University at Carbondale
(36) (28) (14)

SHARON L. SCHERWITZ, "The Self in Feminist Ethics." Adviser: Elizabeth R. Eames.

STEVEN EDWARD WEBER, "Autonomy, Health, and Disease." Adviser: John Howie.

Stanford University
(44) (44) (17)

Syracuse University
(56) (48) (21)

TERRY J. CHRISTLIEB, "Theism and Evil: Consistency, Evidence and Completeness." Adviser: Thomas J. McKay. Awarded in 1988.

JAN A. COVER, "Leibniz on Causality and Time: An Essay in Reductive Metaphysics." Adviser: Jonathan Bennett.

RUDY L. GARNES, "Really Knowing: An Essay on the Absolute Nature of Knowledge." Adviser: William P. Alston.

PAUL L. HRYCAJ, "An Essay on Saul Kripke's 'Wittgenstein on Rules and Private Language'." Adviser: Clyde L. Hardin.

ERIC R. PEARSON, "Truth, Verification, and the Past: An Essay in Anti-Realist Metaphysics." Adviser: Peter van Inwagen.

Temple University
(72) (34) (14)

WILLIAM E. HERFEL, "Coming Attractions: Chaos and Complexity in Scientific Models." Adviser: Charles Dyke.

MARC R. MOREAU, "Intention, Meaning and Reality." Adviser: Joseph Margolis.

PATRICIA A. MURPHY, "Character, Language and the Legal System." Adviser: John Atwell.

The University of Tennessee
(40) (30) (16)

PAUL BOLING, "Hume and Reid on Personal Identity." Adviser: R. E. Aquila.

MICHAEL BOOKER, "Justice and the Macroallocation of Human Donor Organs." Adviser: G. C. Graber.

MICHELE CARTER, "Ethical Analysis of Trust in Therapeutic Situations." Adviser: G. C. Graber.

SCOTT DANIELS, "Justifying Human Gene Therapy." Adviser: G. C. Graber.

GERSHON GRUNFELD, "An Ethical Assessment of the Application of Genetic Knowledge in Human Subjects." Adviser: G. C. Graber.

The University of Texas at Austin
(99) (74) (29)

MARK ALFINO, "Representation and Closure of Meaning in Twentieth Century Philosophy." Adviser: L. H. Mackey.

- CLARENCE BONNEN, "Objectivism in Contemporary Ethics." Adviser: E. Pincoffs.
- JEFF COOMBS, "The Truth and Falsity of Modal Propositions in Renaissance Nominalism." Adviser: I. Angelelli.
- MADELEINE KEYS, "Sextus Empiricus: Against the Grammarians, Rhetoricians and Logicians." Advisers: L. H. Mackey, E. B. Allaire.
- MARGARET LANG, "Democracy and Tradition." Adviser: R. Kane.
- STEVE MONINGER, "Neutrality, Community, and Utopia." Adviser: J. Fishkin.

The University of Toronto
(109) (103) (62)

- JAMES R. CROOKS, "Between Nihilism and Nothingness: Heidegger's Auseinandersetzung with Nietzsche." Adviser: G. A. Nicholson.
- LESLIE A. HOWE, "Kierkegaard's Critique of Ethics." Adviser: G. A. Nicholson.
- CALOGERO IPPOLITO, "An Examination of Wiggins' Theory of Identity and Individuation." Adviser: B. D. Katz.
- JOHN J. KENNEDY, "An Evaluation of Adolf Grunbaum's Critique of Psychoanalysis." Adviser: C. M. T. Hanly.
- JOSEPH S. SPOERL, "Description, Evaluation and Self-Reference: An Appraisal of Some Arguments For and Against Ethical Non-Cognitivism in Recent Analytic Philosophy." Adviser: J. M. Vertin.
- EVAN T. THOMPSON, "Colour Vision and the Comparative Argument: A Case Study in Cognitive Science and the Philosophy of Perception." Adviser: L. W. Ferguson.
- ANDRÉ N. S. VELLINO, "The Complexity of Automated Reasoning." Adviser: A. I. F. Urquhart.

Tulane University
(28) (22) (11)

The University of Utah
(29) (26) (18)

- DAVID ROZEMA, "The Limits of Reason: The Paradox of Existence." Adviser: Don Garrett.

Vanderbilt University
(38) (34) (13)

- DAVID FRANCIS GRUBER, "The Question of Enlightenment: Horkheimer, Adorno, Foucault." Adviser: Charles E. Scott.
- THOMAS C. LEONARD-MARTIN, "Otto Kernberg's Object Relations Theory: A Case Study in the Philosophy of Psychology." Adviser: John J. Compton.
- DAVID W. ODELL-SCOTT, "Logos and Metaphysics: The Christological De-structuring of Metaphysical Theism." Adviser: Charles E. Scott.
- JANE KELLEY RODEHEFFER, "Beyond Narrative Discourse: The Role of Po-

etry in Heidegger's Understanding of Time." Adviser: Charles E. Scott.

MUI HWA SIM, "Aristotle's Understanding of Form and Universals." Adviser: Alasdair MacIntyre.

The University of Virginia
(30) (27) (11)

CRISPIN SARTWELL, "Art and Articulation." Advisers: Richard Rorty, Daniel T. Devereux.

Washington University
(35) (26) (16)

JESSE HOBBS, "Religious Explanation and Scientific Ideology." Adviser: Robert B. Barrett.

ADEJARE OYETUNDE OLADOSU, "The Obligation to Obey the Law." Adviser: Stanley L. Paulson.

GERALD EDWARD MOZUR, "Dewey's Principle of Continuity: Context and Criticism." Adviser: Robert B. Barrett.

The University of Washington
(36) (26) (14)

The University of Waterloo
(30) (20) (15)

MARK ROBERT LETTERI, "Heidegger's Thaumatology." Adviser: Richard Holmes.

DARYL A. PULLMAN, "Human Dignity and the Foundations of Liberalism." Adviser: Jan Narveson.

Wayne State University
(22) (20) (10)

HANS V. HANSEN, "Practical Reasons and Internalism." Adviser: Bruce Russell.

The University of Western Ontario
(60) (46) (21)

FRANCOISE BAYLIS, "The Ethics of *Ex Utero* Research on Spare 'IVF' Human Embryos." Advisers: B. Friedman, B. Hoffmaster.

LOUIS CHARLAND, "Emotions and the Representational Mind." Adviser: A. Marras.

M. FRANCES EGAN, "Foundational Issues in the Representational Theory of Mind." Adviser: A. Marras.

The University of Wisconsin
(78) (58) (22)

SCOTT J. BERMAN, "Socrates and the Science of Happiness." Adviser: Terry Penner.

ANTONIO K. CHU, "In Search of Opacity." Adviser: Terry Penner.

NAOMI RESHOTKO, "Dretske and Socrates: The Development of the Socratic Good in a Contemporary Analysis of Desire." Adviser: Terry Penner.

MARY C. WOOD, "Argument against Disquotation: A Nonuniformity in the *De Dicto* Belief Modality." Adviser: Michael Byrd.

Yale University
(49) (40) (14)

SARAH BUSS, "The Conditions of Free Agency." Adviser: Harry Frankfurt.
AMY MULLIN, "The Divided Self: An Intrapersonal Politics." Adviser: Karsten Harries.

JAMES B. MURPHY, "The Theory of the Division of Labor in Classical Political Economy: An Aristotelian Critique." Adviser: Rulon Wells.

York University
(50) (37) (32)

CAROL BIGWOOD, "The Holding Sway: Towards a Feminist Ontology Through Art." Adviser: Claudio Duran.

VISITING PROFESSORS FROM ABROAD, 1990-91

Bartholomew Abanuka Spiritan School of Philosophy, Nigeria	The University of Chicago October 1990-June 1991
Karl Acham Universität Graz	The University of Waterloo Summer 1991
Stefan Amsterdamski Polish Academy of Science	Stanford University Spring 1991
V. Bader Universiteit van Amsterdam	The University of Toronto Fall 1990
Johan van Benthem Rijksuniversiteit Groningen, Holland	Stanford University Spring 1991
Miles Burnyeat Cambridge University	The University of Chicago February 1991-March 1991
Wolfgang Carl Universität Göttingen	Princeton University Spring 1991
M. J. Cresswell Victoria University of Wellington, New Zealand	The University of Massachusetts, Amherst Fall 1990
Greg Currie University of Otago, New Zealand	The University of Maryland Spring 1991
Wolfgang Detel Universität Hamburg	Columbia University Spring 1991
Alan Gabbey Queen's University, Belfast	The University of Utah Winter 1991
Rom Harré Oxford University	The State University of New York, Binghamton Fall 1990
Klaus Held Bergische Universität	The State University of New York, Stony Brook Spring 1991
M. Hempolinski Instytut Filozofii i Socjologii, Poland	McMaster University Fall 1990

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|---|---|
| C. A. Hooker
University of Newcastle,
Australia | The University of Western
Ontario
Spring 1990–Fall 1990 |
| Christopher Hookway
University of Birmingham | The University of Pittsburgh
Spring 1991 |
| Gilbert Hottois
Université Libre de Bruxelles | Université de Montréal
Fall 1990 |
| Hans Ineichen
Universität Erlangen | Emory University
Fall 1990–Summer 1991 |
| Richard Kearney
University College, Dublin | Boston College
Spring 1991 |
| Leszek Koczanowicz
University of Wrocław | The State University of New
York, Stony Brook
Fall 1990 |
| Janusz Kuczysnski
University of Warsaw | McMaster University
Fall 1990 |
| John Llewelyn
University of Edinburgh | Loyola University of Chicago
Fall 1990–Spring 1991 |
| Mihailo Markovic
Serbian Academy of Sciences and
Arts | The University of Pennsylvania
Fall 1990 |
| Krzysztof Michalski
Institut für die Wissenschaften
vom Menschen, Vienna | Boston University
Fall 1990 |
| Grigori Mints
Estonian Academy of Sciences | Stanford University
Fall 1990 |
| Julian Nida-Rümelin
Universität München | The University of Minnesota
Spring 1991 |
| Adi Ophir
Tel Aviv University | Northwestern University
Fall 1990 |
| A.D.T.E. Perera
University of Sri Lanka | The University of New Mexico
Fall 1990 |
| Michael Philips
Portland State University | The University of British
Columbia
July 1989–June 1991 |
| Anthony Price
York University | Brown University
Fall 1990 |

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|---|---|
| Oswald Schwemmer
Heine University of Düsseldorf | Emory University
Spring 1991 |
| Krister Segerberg
Auckland University | The University of California,
Irvine
January 1991–March 1991 |
| Barry Smith
Victoria University of
Manchester | The State University of New
York, Buffalo
Spring 1991 |
| Dan Sperber
C.N.R.S., Paris | Princeton University
Fall 1990 |
| Svetozar Stojanovic
University of Belgrade | The University of Kansas
Fall 1990 |
| Liu Fan Tong
Fu Dan University, Shanghai | The University of New Mexico
Fall 1990 |
| Angela Tucek
Universität Zürich | The City University of New York
Fall 1990–Spring 1991 |
| Barbara Tuchańska
Uniwersytetu Łódzkiego, Łódź,
Poland | The State University of New
York, Buffalo
Fall 1990–Spring 1991 |
| Burkhard Tuschling
Universität Marburg | Marquette University
Spring 1991 |
| Paul Weingartner
Universität Salzburg | The University of California,
Irvine
October 1990–March 1991 |
| Stephen Williams
Worcester College, Oxford | The University of Rochester
Fall 1990–Spring 1991 |
| Yin Deng Xiang
Academia Sinica, Beijing | The University of New Mexico
Fall 1990 |

NORTH AMERICAN PHILOSOPHERS ABROAD, 1990–91

- | | |
|---|--|
| Abraham Anderson
The University of New Mexico | Brunel University, London
Fall 1990 |
| Nicholas Asher
The University of Texas at
Austin | Universität Stuttgart
Fall 1990 |
| James F. Bohman
Saint Louis University | Universität Frankfurt
Fall 1990–Summer 1991 |

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|---|---|
| David S. Clarke, Jr.
Southern Illinois University | Southern Illinois University,
Nakajo, Japan
Fall 1990 |
| Frank Cunningham
The University of Toronto | Universiteit van Amsterdam
Fall 1990 |
| Keith Donnellan
The University of California, Los Angeles | University of Padua
Fall 1990-Spring 1991 |
| John T. Granrose
The University of Georgia | C. G. Jung Institute, Zürich
Spring 1991 |
| Agnes Heller
New School for Social Research | Hungarian Academy of Sciences
Spring 1991 |
| Don Ihde
The State University of New York, Stony Brook | University of Sydney
Fall 1990-Spring 1991 |
| Kenneth Inada
The State University of New York, Buffalo | Selangor, Malaysia
Fall 1990-Summer 1991 |
| Tziporah Kasachkoff
The City University of New York | Ben Gurion University, Israel
Fall 1990-Spring 1991 |
| Erazim Kohák
Boston University | Charles University, Prague
Spring 1991 |
| Pierre Laberge
The University of Ottawa | Université de Genève
Fall 1990-Spring 1991 |
| A. S. McGrade
The University of Connecticut | Cambridge University
Spring 1991 |
| Ruth Millikan
The University of Connecticut | Oxford University
Spring 1991 |
| Philip Peterson
Syracuse University | Université Catholique de Louvain
Spring 1991 |
| Hilary Putnam
Harvard University | University of St. Andrews
Fall 1990 |
| David Raynor
The University of Ottawa | Oxford University
Fall 1990-Spring 1991 |
| Michael Ruse
The University of Guelph | Cambridge University
Fall 1990-Summer 1991 |

Harvey Siegel The University of Miami	Universiteit van Amsterdam London School of Economics Fall 1990-Spring 1991
Michael Slote The University of Maryland	Auckland University, New Zealand Summer 1991
Lynne Spellman The University of Arkansas	Lucy Cavendish College, Cambridge University Fall 1990-Spring 1991
Gisela Striker Harvard University	Wissenschaftskolleg, Berlin Fall 1990-Spring 1991

PROFESSORS ENTERING RETIREMENT IN 1990

E. Maynard Adams The University of North Carolina at Chapel Hill	June 1990
Robert Anderson The University of Nebraska	June 1990
David Bennett The University of Utah	July 1990
Alonzo Church The University of California, Los Angeles	July 1990
Romane L. Clark Indiana University	December 1990
Bowman L. Clarke The University of Georgia	July 1990
Antonio de Nicolas The State University of New York, Stony Brook	January 1990
Elizabeth R. Eames Southern Illinois University, Carbondale	August 1990
Berkley B. Eddins The State University of New York, Buffalo	July 1989

Paul Feyerabend The University of California, Berkeley	June 1990
Herbert Fingarette The University of California, Santa Barbara	July 1990
James Frank The University of Colorado	September 1990
Kenneth Gallagher Fordham University	December 1989
W. J. Huggett The University of Toronto	July 1990
J. F. M. Hunter The University of Toronto	July 1990
Donald Kalish The University of California, Los Angeles	July 1990
Quentin Lauer Fordham University	May 1990
Norman M. Martin The University of Texas at Austin	August 1990
Hiram McLendon New York University	May 1990
Robert P. Mohan The Catholic University of America	June 1990
John Moulton The University of Wisconsin	June 1990
Andrew Oldenquist The Ohio State University	June 1990
Bertrand Rioux Université de Montréal	June 1990
Albert Shalom McMaster University	June 1990
Michael W. Strasser Duquesne University	August 1990

PROFESSORS RETIRING

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Paul Taylor The City University of New York	September 1990
H. S. Thayer The City University of New York	September 1990
Jean Theau The University of Ottawa	June 1990
Alfonso Verdu The University of Kansas	May 1990
James J. Walsh Columbia University	May 1990
Terence Williams The University of Guelph	April 1990
Jerzy Wojciechowski The University of Ottawa	June 1990

ANNOUNCEMENTS

The *Review of Metaphysics* is pleased to announce that the winner of the 1989 Dissertation Essay Competition is Barbara E. Hannan, currently teaching at the University of Idaho. Her essay, entitled "Rational Judgment and the Fate of Belief and Desire," was taken from her dissertation written at the University of Arizona under the direction of Stephen Schiffer and John L. Pollock.

The American Society for Eighteenth-Century Studies is accepting nominations for the 1989-90 James L. Clifford Prize, awarded to the best article which serves as an outstanding study of some aspect of eighteenth-century culture and which would be of interest to any eighteenth-century specialist, regardless of discipline. The prize carries an award of \$300. The article must have appeared in print in a journal, festschrift, or other serial publication between July 1989 and June 1990, and must be no longer than 7500 words. Nominations, made by a member of the Society or by the author, must be accompanied by an offprint or copy of the article and must be postmarked by February 1, 1991. Nominations and inquiries should be sent to ASECS, Edward P. Harris, Executive Secretary, University of Cincinnati—Mail Location 368, Cincinnati, Ohio 45221; telephone 513-556-3820.

The Bertrand Russell Society announces a call for papers to be presented at its meeting with the Eastern Division of the American Philosophical Association in December 1991. Papers may be on any aspect of Russell's philosophy. They should have a reading time of about one half-hour and should be submitted in triplicate, typed and double-spaced with an abstract of not more than 150 words. The name and address of the author and the title of the paper should be submitted on a separate page. The submission deadline is April 1, 1991 and the papers should be sent to David E. Johnson, Chair, Philosopher's Committee, The Bertrand Russell Society, Sampson Hall, U.S. Naval Academy, Annapolis, Maryland 21402-5044. Those desiring the return of their papers should enclose a stamped, self-addressed envelope.

The Gabriel Marcel Society announces a call for papers to be read at the fifth annual meeting of the Society, which will take place in conjunction with the American Catholic Philosophical Association Meeting in Boston, Massachusetts from April 5-7, 1991. Papers should be concerned with any topic pertaining to Marcel's thought. They should be double-spaced, 10-12 pages, and submitted by November 15, 1990, to: K. R. Hanley, President, Marcel Society, Philosophy Department, LeMoyne College, Syracuse, New York 13214.

The twelfth annual Santa Clara University Philosophy Conference, on the topic "The Epistemology of Religious Belief," will be held on April 19-20, 1991, with William P. Alston and Alvin Plantinga as featured speak-

ers. Papers on the topic of the possibility and nature of religious knowledge may be submitted for the conference, the journal *Logos*, or both. (Please specify which when you submit your paper.) Papers over thirty minutes reading time will be considered only for *Logos*. Papers for *Logos* may be up to 25 pages long. Please send two copies of the paper suitable for blind review and include a brief abstract (100 words). Santa Clara will cover the cost of lodging, meals, and local transportation for individuals whose papers are selected for the conference. The deadline for the receipt of papers is January 7, 1991. For further information, write or call: Elizabeth S. Radcliffe (Editor, *Logos*), Department of Philosophy, Santa Clara University, Santa Clara, California 95053; telephone 408-554-4093.

The Society of Christian Philosophers announces a call for papers for its 1991 Eastern Regional Meeting to be held April 5-7 at Rhodes College. Papers may be submitted on any topic of interest to Christian philosophers, in any area of philosophical inquiry. Papers must be limited to 10-15 pages (reading time of 30 minutes). They must be submitted in triplicate and accompanied by an abstract of no more than 100 words. The deadline for submission is January 1, 1991. Additionally, anyone wishing to serve as a Chair of a concurrent topical session should submit by January 1, 1991, a curriculum vitae as an indication of specialties and interests. Papers and inquiries should be addressed to Larry Lacy, Department of Philosophy, Rhodes College, 2000 North Parkway, Memphis, Tennessee 38112; telephone 901-726-3577.

A call for papers is made for an international colloquium to commemorate the centenary of the publication of F. H. Bradley's *Appearance and Reality*. The conference will be held from April 2-5, 1993 at Merton College, Oxford, where Bradley was a Fellow and lived from 1870 until his death in 1924. Papers should be concerned with themes relevant to *Appearance and Reality*. They should be produced on A4 paper, double-spaced and in letter-quality type, and not more than 12 sides in length. Papers will be accepted for the colloquium only on condition that they have not been published elsewhere and they will, if required, be made available for publication in a volume of the *Mind* Association Occasional Volume Series, published by Oxford University Press. The deadline for submissions is October 1991. Papers and inquiries should be sent to Guy Stock, Department of Philosophy, University of Dundee, Dundee DD1 4HN, Scotland.

The Center for Philosophy of Science, University of Pittsburgh, announces a three-day colloquium to celebrate the 30th anniversary of Adolf Grünbaum's appointment as Andrew Mellon Professor of Philosophy and also of his founding of the Center for Philosophy of Science. The colloquium will be held October 5-7, 1990. Scheduled speakers include Morris Eagle, Arthur Fine, Allan Hobson, Erhard Scheibe, Bas van Fraassen, and John Worrall. For more information, call the Center for Philosophy of Science at 412-624-1050.

The Department of Philosophy at the University of California, Riverside, in cooperation with the University of California Humanities Research Institute (Irvine) and the Center for Ideas and Society is pleased to announce a conference "Scepticism in the History of Philosophy: A Pan-American Dialogue," scheduled for February 15-17, 1991 at the University of California, Riverside. For more information contact conference organizers at the Center for Ideas and Society, University of California, Riverside, Riverside, California 92521-0201.

The School of Philosophy of the Catholic University of America, Washington, D.C., announces its 1990 fall lecture series, "Aquinas and His Legacy." Lectures are held each Friday from September 7-December 7. The series includes as speakers, in chronological order, John Wippel (The Catholic University of America), Edward Mahoney (Duke University), William Wallace (The Catholic University of America), Kenneth Schmitz (The University of Toronto), Alejandro Llano (University of Navarra, Spain), John Hittinger (The College of St. Francis), Eleanore Stump (Virginia Polytechnic Institute), Ralph McInerny (Notre Dame), Jorge Gracia (SUNY Buffalo), David Gallagher (The Catholic University of America), Stephen Brown (Boston College), Oliva Blanchette (Boston College), and Gregory Reichberg (The Catholic University of America).

The Georgetown University Center for Text and Technology is pleased to announce the availability of their first product in the Georgetown/Hegel Society Project in Electronic Text: the Baillie translation of Hegel's *Phenomenology of Mind*. The electronic text, in ASCII format for use with an IBM or compatible microcomputer, is encoded for use with the WordCruncher text-analysis program from Electronic Text Corporation of Orem, Utah (1-800-234-0546). This version is available from Georgetown University Press for \$35 plus shipping and handling.

A special double issue of *The St. John's Review* has recently appeared, entitled *Four Essays on Plato's Republic*. The essays are by Eva T. H. Braun, Robert B. Williamson, David Lachterman, and John White, with a preface by David Lachterman. The issue may be purchased for \$4.00 from the St. John's College Bookstore, Annapolis, Maryland 21404.

The Woodrow Wilson National Fellowship Foundation is now accepting applications from candidates for Ph.D., Th.D., or E.D. degrees at graduate schools in the United States for the Charlotte W. Newcombe Doctoral Dissertation Fellowships for 1991. Fellowships are designed to encourage original and significant study of ethical or religious values in all fields. The forty winners will receive \$11,500 for 12 months of full-time dissertation research and writing, beginning in June or September, 1991. Applications must be requested by November 30, 1990, and postmarked by December 14, 1990. Application forms may be requested from: Newcombe Dissertation Fellowships, Woodrow Wilson National Fellowship Foundation, P.O. Box 642, Princeton, New Jersey 08542.

Iyyun, originally founded in 1945 in Jerusalem as a Hebrew Philosophical Quarterly, has begun publishing biannually in English (January, July) and biannually in Hebrew (April, October). The English issues include summaries of the articles in the Hebrew issues. Additionally, *Iyyun* accepts articles of any length and critical studies irrespective of philosophical school, style, or method of inquiry. For further information, consult a recent issue of *Iyyun*.

Donald Sherburne will become Chair of the Vanderbilt University Philosophy Department in September 1990. Michael Hodges will be the Director of Graduate Studies. Additionally, John Sallis has assumed the W. Alton Jones Chair of Philosophy at Vanderbilt.

The Philosophy Department of University College Dublin is pleased to announce the following appointments and promotions: Dermot Moran has been appointed Professor and Head of Department; Richard Kearney has been promoted to Associate Professor. In addition, Dermot Moran has been appointed as Editor of *Philosophical Studies* (National University of Ireland).

DOCUMENTATION

On March 9, 1990, at the forty-first meeting of the Metaphysical Society of America, the Founder's Medal, named in honor of Paul Weiss, was conferred on Errol E. Harris. The citation, prepared by George L. Kline and read by Robert C. Neville, was as follows:

Errol E. Harris, John Evans Professor Emeritus of Moral and Intellectual Philosophy, Northwestern University, Past President of this Society and Past President of the Hegel Society of America: we, the officers and members of the Metaphysical Society of America, take particular pleasure in honoring you with the presentation of the Founder's Medal—the Paul Weiss medal—for distinguished contributions to metaphysics.

In an exemplary career, spanning more than four decades, as teacher, scholar, and thinker you have inspired the respect and affection of several generations of students—many of whom are now members of this Society—at the University of Witwatersrand, Connecticut College, the University of Kansas, and Northwestern University, and as a visiting professor at Yale University, the University of Edinburgh, Marquette University, Villanova University, and Emory University. As a sympathetic and resourceful interpreter of the works of Spinoza and Hegel, you have thrown much-needed light on the deep and difficult systems of these two towering thinkers.

Reinterpreting and extending central themes in the thought of Collingwood and Whitehead, as well as of Spinoza and Hegel, you have gone on to develop a powerful and original speculative ontology, philosophical theology, and philosophy of nature. Your teaching and your many books and essays have been marked by high intelligence, broad erudition in several languages, a wide-ranging philosophical imagination, and an extraordinary openness to fundamental developments in the natural sciences—all placed in the service of an unflagging exploration of key issues in speculative thought.

In making this award, the officers and members of this Society pay honor both to your outstanding achievements as a speculative philosopher and to you yourself as a person of rare humanity, integrity, generosity, and modesty.

The British Journal for the Philosophy of Science

Editor **G.M.K. Hunt** (University of Warwick)

Review Editor **L.J. Bennett**

The British Journal for the Philosophy of Science has, since 1951, established itself as the leading international journal in its field. It aims to study the logic, method, and philosophy of science as well as the various special sciences including the social sciences. In addition it publishes extended review articles of important books - or groups of books on related topics - as well as encouraging correspondence and discussion of previously published articles. The Journal is the official organ of the British Society for the Philosophy of Science.

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OXFORD JOURNALS

ARTICLES

MATHEMATICS AND PHILOSOPHY: THE STORY OF A MISUNDERSTANDING

GIAN-CARLO ROTA

I

ARE MATHEMATICAL IDEAS INVENTED OR DISCOVERED? This question has been repeatedly posed by philosophers through the ages, and will probably be with us forever. We shall not be concerned with the answer. What matters is that by asking the question, we acknowledge the fact that mathematics has been leading a double life.

In the first of its lives, mathematics deals with facts like any other science. It is a fact that the altitudes of a triangle meet at a point, it is a fact that there are only seventeen kinds of symmetry in the plane, it is a fact that there are only five nonlinear differential equations with fixed singularities, it is a fact that every finite group of odd order is solvable. The work of a mathematician consists in dealing with these facts in various ways. When mathematicians talk to each other, they tell the facts of mathematics. In their research work, mathematicians study the facts of mathematics with a taxonomic zeal similar to that of the botanist who studies the properties of some rare plant.

The facts of mathematics are as useful as the facts of any other science. No matter how abstruse they may appear at first, sooner or later they find their way back to practical applications. The facts of group theory, for example, may appear abstract and remote, but the practical applications of group theory have been numerous and they have occurred in ways that no one might have anticipated. The facts of today's mathematics are the springboard for the science of tomorrow.

In its second life, mathematics deals with proofs. A mathematical theory begins with definitions, and derives its results from

clearly agreed-upon rules of inference. Every fact of mathematics must be ensconced in an axiomatic theory and formally proved if it is to be accepted as true. Axiomatic exposition is indispensable in mathematics, because the facts of mathematics, unlike the facts of physics, are not amenable to experimental verification.

The axiomatic method of mathematics is one of the great achievements of our culture. However, it is only a method. Whereas the facts of mathematics, once discovered, will never change, the method by which these facts are verified has changed many times in the past, and it would be foolhardy to expect that it will not change again at some future date.

II

The success of mathematics in leading a double life has long been the envy of philosophy, another field which also is blessed—or maybe we should say cursed—to live in two worlds, but which has not been quite as comfortable with its double life.

In the first of its lives, philosophy sets to itself the task of telling us how to look at the world. Philosophy is effective at correcting and redirecting our thinking. It helps us do away with glaring prejudices and unwarranted assumptions. Philosophy lays bare contradictions which we would rather avoid facing. Philosophical descriptions make us aware of phenomena that lie at the other end of the spectrum of rationality, phenomena which science will not and cannot deal with.

The assertions of philosophy are less reliable than the assertions of mathematics, but they run deeper into the roots of our existence. The philosophical assertions of today will be part of the common sense of tomorrow.

In its second life, philosophy, like mathematics, relies on a method of argumentation that seems to follow the rules of some logic or other. But the method of philosophical reasoning, unlike that of mathematical reasoning, has never been clearly agreed upon by philosophers, and much philosophical discussion since the beginnings in Greece has been spent on discussions of method. Philosophy's relationship with goddess Reason is closer to a forced cohabitation than to the romantic liaison that has always existed between goddess Reason and mathematics.

The assertions of philosophy are tentative and partial. It is not even clear what it is that philosophy deals with. It used to be said that philosophy was "purely speculative," and this used to be an expression of praise. But lately the word "speculative" has become a bad word.

Philosophical arguments are emotion-laden to a greater degree than mathematical arguments. Philosophy is often written in a style which is more reminiscent of a shameful admission than of a dispassionate description. Behind every question of philosophy lurks a gnarl of unacknowledged emotional cravings which act as powerful motivation for conclusions in which reason plays at best a supporting role. To bring such hidden emotional cravings out into the open, as philosophers have felt it their duty to do, is to ask for trouble. Philosophical disclosures are frequently met with the anger that we reserve for the betrayal of our family secrets.

This confused state of affairs makes philosophical reasoning more difficult, but far more rewarding. Although philosophical arguments are blended with emotion, although philosophy seldom reaches a firm conclusion, although the method of philosophy has never been clearly agreed upon, nonetheless, the assertions of philosophy, tentative and partial as they are, come far closer to the truth of our existence than the proofs of mathematics.

III

Philosophers of all times, beginning with Thales and Socrates, have suffered from the recurring suspicions about the soundness of their work and have responded to them as best they could.

The latest reaction against the criticism of philosophy began around the turn of the century and is still very much with us. To-day's philosophers (not all of them, fortunately) have become great believers in mathematization. They have rewritten Galileo's famous sentence to read "The great book of philosophy is written in the language of mathematics."

"Mathematics calls attention to itself," wrote Jack Schwartz in a famous paper on another kind of misunderstanding. Philosophers in this century have suffered more than ever from the dictatorship of definitiveness. The illusion of the final answer, what two thousand years of Western philosophy had failed to accomplish, was

thought in this century to have come at last within reach by the slavish imitation of mathematics.

Mathematizing philosophers have claimed that philosophy should be made factual and precise. They have given guidelines to philosophical argument which are based upon mathematical logic. They have contended that the eternal riddles of philosophy can be definitively solved by pure reasoning, unencumbered by the weight of history. Confident in their faith in the power of pure thought, they have cut all ties to the past on the claim that the messages of past philosophers are now "obsolete."

Mathematizing philosophers will agree that traditional philosophical reasoning is radically different from mathematical reasoning. But this difference, rather than being viewed as strong evidence for the heterogeneity of philosophy and mathematics, is taken instead as a reason for doing away with nonmathematical philosophy altogether.

In one area of philosophy the program of mathematization has succeeded. Logic is nowadays no longer a part of philosophy. Under the name of mathematical logic, it is now a successful and respected branch of mathematics, one that has found substantial practical applications in computer science more so than any other branch of mathematics. But logic has become mathematical at a price. Mathematical logic has given up all claims to give a foundation to mathematics. Very few logicians of our day believe any longer that mathematical logic has anything to do with the way we think.

Mathematicians are therefore mystified by the spectacle of philosophers pretending to re-inject philosophical sense into the language of mathematical logic. A hygienic cleansing of every trace of philosophical reference had been the price of admission of logic into the mathematical fold. Mathematical logic is now just another branch of mathematics, like topology and probability. The philosophical aspects of mathematical logic are qualitatively no different from the philosophical aspects of topology or the theory of functions, aside from a curious terminology which, by an accident of chance originating in Leibniz's reading of Suárez, goes back to the Middle Ages.

The fake philosophical terminology of mathematical logic has misled philosophers into believing that mathematical logic deals with the truth in the philosophical sense. But this is a mistake.

Mathematical logic does not deal with the truth, but only with the game of truth. The snobbish symbol-dropping one finds nowadays in philosophical papers raises eyebrows among mathematicians. It is as if you were at the grocery store and you watched someone trying to pay his bill with Monopoly money.

IV

By all accounts, mathematics is the most successful intellectual undertaking of mankind. Every problem of mathematics gets solved, sooner or later. Once it is solved, a mathematical problem is forever finished: no later event will disprove a correct solution. As mathematics progresses, problems that were once difficult become easy enough to be assigned to schoolboys. Thus, Euclidean geometry is now taught in the second year of high school. Similarly, the mathematics that mathematicians of my generation have learned in graduate school has now descended to the undergraduate level, and the time is not far when it may be taught in the high schools.

Not only is every mathematical problem solved, but eventually every mathematical problem is proved trivial. The quest for ultimate triviality is characteristic of the mathematical enterprise.

When we look at the problems of philosophy, another picture emerges. Philosophy can be described as the study of a few problems whose statements have changed little since the Greeks: the mind-body problem, or the problem of reality, to recall only two. A dispassionate look at the history of philosophy discloses two contradictory features: first, these problems have in no way been solved, nor are they likely to be solved as long as philosophy survives; second, every philosopher who has ever worked on any of these problems has proposed his own "definitive solution," which have been invariably rejected as false by his successors.

Such crushing historical evidence forces us to the conclusion that these two paradoxical features must be an inescapable concomitant of the philosophical enterprise. Failure to conclude has been an outstanding characteristic of philosophy throughout its history.

Philosophers of the past have repeatedly stressed the essential role of failure in philosophy. José Ortega y Gasset, for example, used to describe philosophy as "a constant shipwreck." However, the fear of failure did not stop him or any other philosopher from doing philosophy.

Philosophers' failure to reach any kind of agreement does not make their writings any less relevant to the problems of our day. We reread with interest the mutually contradictory theories of mind that Plato, Aristotle, Kant, and Comte have bequeathed to us, and we find their opinions timely and enlightening, even in problems of artificial intelligence.

But unfortunately, the latter-day mathematizers of philosophy are unable to face up to the inevitability of failure. Borrowing from the world of business, they have embraced the ideal of success. Philosophy had better be successful, or else it should be given up, like any business.

V

Since mathematical concepts are precise, and since mathematics has been successful, the mathematizers mistakenly infer that philosophy would be better off if it dealt with precise concepts and unequivocal statements. Philosophy will have a better chance at being successful if it becomes precise.

The prejudice that a concept must be precisely defined in order to be meaningful, or that an argument must be precisely stated in order to make sense, is one of the most insidious of the twentieth century. The best-known expression of this prejudice appears at the end of Ludwig Wittgenstein's *Tractatus*, and the author's later work, in particular the *Philosophical Investigations*, is a loud and repeated retraction of his earlier *gaffe*.

Looked at from the vantage point of ordinary experience, the ideal of precision appears preposterous. Our everyday reasoning is not precise, yet it is effective. Nature itself, from the cosmos to the gene, is approximate and inaccurate.

The concepts of philosophy are among the least precise. Mind, perception, memory, cognition, are all words that do not have any fixed or clear meaning. Yet they do have meaning. We misunderstand these concepts when we force them to be precise. To use an image from Wittgenstein, philosophical concepts are like the winding streets of an old city, which we must accept as they are and which we must familiarize ourselves with by strolling through them while admiring their historical heritage. Like a Carpathian dictator, the advocates of precision would raze the city to the ground and replace it with a straight and wide Avenue of Precision.

The ideal of precision in philosophy has its roots in a misunderstanding of the notion of rigor. It has not occurred to our mathematizing philosophers that philosophy might be endowed with its own kind of rigor, a rigor that philosophers should dispassionately describe and codify, as mathematicians did with their own kind of rigor a long time ago. Bewitched as they are by the success of mathematics, they remain enslaved by the prejudice that the only possible rigor is that of mathematics, and that philosophy has no choice but to imitate it.

VI

The facts of mathematics are verified and presented by the axiomatic method. One must guard, however, against confusing the *presentation* of mathematics with the *content* of mathematics. An axiomatic presentation of a mathematical fact differs from the fact that is being presented as medicine differs from food. It is true that this particular medicine is necessary to keep the mathematician at a safe distance from the self-delusions of the mind. Nonetheless, understanding mathematics means being able to *forget* the medicine and enjoy the food. Confusing mathematics with the axiomatic method for its presentation is as preposterous as confusing the music of Johann Sebastian Bach with the techniques for counterpoint in the Baroque age.

This is not, however, the opinion held by our mathematizing philosophers. They are convinced that the axiomatic method is a basic instrument for discovery. They mistakenly believe that mathematicians *use* the axiomatic method in solving problems and proving theorems. To the misunderstanding of the role of the method they have added the absurd pretension that this presumed method should be adopted in philosophy. Systematically confusing food with medicine, they have pretended to replace the food of philosophical thought with the medicine of axiomatics.

This mistake betrays the philosophers' pessimistic view of their own field. Unable or afraid as they are of singling out, describing, and analyzing the structure of philosophical reasoning, they seek help from the proven technique of another field, a field that is the object of their envy and veneration. Secretly disbelieving in the power of autonomous philosophical reasoning to arrive at the truth,

they have surrendered to a slavish and superficial imitation of the truth of mathematics.

The negative opinion that many philosophers hold of their own field has caused damage to philosophy. The mathematician's contempt for the philosopher's exaggerated estimation of a method of mathematical exposition feeds back onto the philosophers' inferiority complex and further decreases the philosophers' confidence.

VII

"Define your terms!" This old injunction has become a platitude in everyday discussions. What could be healthier than a clear statement, right at the beginning, of what it is that we are talking about? Doesn't mathematics start with definitions and then develop the properties of the objects that have been defined by an admirable and inexorable logic?

Salutary as this injunction may be in mathematics, it has had disastrous consequences when carried over to philosophy. Whereas mathematics *starts* with a definition, philosophy *ends* with a definition. A clear statement of what it is we are talking about is not only missing in philosophy; such a statement would be the end of all philosophy. If we could define our terms, then we would dispense with philosophical argument.

Actually, the "define your terms" imperative is deeply flawed in more than one way. While reading a formal mathematical argument, we are given to believe that the "undefined terms" or "basic definitions" have been whimsically chosen out of a variety of possibilities. Mathematicians take mischievous pleasure in faking the arbitrariness of definition. In actual fact, no mathematical definition is arbitrary. The theorems of mathematics motivate the definitions as much as the definitions motivate the theorems. A good definition is "justified" by the theorems one can prove with it, just like the proof of a theorem is "justified" by appealing to a previously given definition.

There is thus a hidden circularity in formal mathematical exposition. The theorems are proved by starting with definitions, but the definitions themselves are motivated by the theorems that we have previously decided ought to be right.

Instead of focusing on this strange circularity, philosophers have pretended it does not exist, as if the axiomatic method, proceeding

linearly from definition to theorem, were endowed with a definitiveness which is instead, as every mathematician knows, a subtle fakery to be debunked.

Perform the following thought experiment. Suppose that you are given two formal presentations of the same mathematical theory. The definitions of the first presentation are the theorems of the second, and vice-versa. This situation frequently occurs in mathematics. Which of the two presentations makes the theory "true?" Neither, evidently. What we have is two presentations of the *same* theory.

This thought experiment shows that mathematical truth is not brought into being by a formal presentation. Rather, formal presentation is only a technique for displaying mathematical truth. The truth of a mathematical theory is distinct from the correctness of any axiomatic method that may be chosen for the presentation of the theory. Mathematizing philosophers have missed this distinction.

VIII

What will happen to the philosopher who insists on precise statements and clear definitions? Realizing after futile trials that philosophy resists such a treatment, this philosopher will proclaim that most problems previously thought to belong to philosophy are heretofore to be excluded from consideration. He will claim that they are "meaningless," or at best that they can be settled by an analysis of their statements that will eventually show them to be vacuous.

This is not an exaggeration. The classical problems of philosophy have become forbidden topics in many philosophy departments. The mere mention of one such problem by a graduate student or by a junior colleague will result in raised eyebrows, followed by severe penalties. In this dictatorial regime, we have witnessed the shrinking of philosophical activity to an impoverished *problématique*, mainly dealing with language.

In order to justify their neglect of most of the old and substantial questions of philosophy, our mathematizing philosophers have resorted to the ruse of claiming that many questions formerly thought to be philosophical are instead "purely psychological" and should be dealt with in the psychology department.

If the psychology department of any university were to consider only one-tenth of the problems that philosophers are pawning off on them, then psychology would without question be the most fascinating of all subjects. Maybe it is. But the fact is that psychologists have no intention of dealing with problems abandoned by philosophers who have been derelict in their duties.

One cannot do away with problems by decree. The classical problems of philosophy are now coming back with a vengeance in the forefront of science. For example, the Kantian problem of the conditions of the possibility of vision, after years of neglect, is now again rearing its old head in brain science.

Experimental psychology, neurophysiology, and computer science may turn out to be the best friends of traditional philosophy. The awesome complexities of the phenomena that are being studied in these sciences have convinced scientists (well in advance of the philosophical establishment) that progress in science will crucially depend on philosophical research in the most classical vein.

IX

What does a mathematician do when trying to work on a mathematical problem? An adequate description of this event might take a thick volume. We shall be content with recalling an old saying, probably going back to the mathematician George Pólya: "Few mathematical problems are ever solved directly."

Every mathematician will agree that an important step in solving a mathematical problem, perhaps the most important step, consists in analyzing other attempts, either attempts that have been previously carried out or attempts that one imagines might have been carried out, with a view to discovering how such "previous" attempts were misled. In short, no mathematician will ever dream of attacking a substantial mathematical problem without first becoming acquainted with the history of the problem, whether the real history or an ideal history that a gifted mathematician might reconstruct. The solution of a mathematical problem goes hand-in-hand with the discovery of the inadequacy of previous attempts, with the enthusiasm that sees through and does away with layers of irrelevancies inherited from the past which cloud the real nature of the problem. In philosophical terms, a mathematician who solves a problem cannot avoid facing up to the *historicity* of the problem. Mathematics is nothing if not a historical subject *par excellence*.

Every philosopher since Heraclitus has stressed with striking uniformity that all thought is constitutively historical. Every philosopher, that is, until our mathematizing philosophers came along, claiming that the mind is nothing but a complex thinking machine not to be polluted by the inconclusive ramblings of bygone ages. Historical thought has been dealt a *coup de grace* by those who today occupy some of the chairs of our philosophy departments. Graduate school requirements in the history of philosophy have been dropped along with language requirements, and in their place we find required courses in mathematical logic.

It is important to single out the myth that underlies such drastic revision of the concept of mind. It is the myth that believes the mind to be a mechanical device, a myth that has been repeatedly and successfully attacked by the best philosophers of our time (Husserl, Dewey, Wittgenstein, Austin, and Ryle, to name only a few).

According to this myth, the process of reasoning is viewed as the functioning of a vending machine which, by setting into motion a complex mechanism reminiscent of those we saw in Charlie Chaplin's film "Modern Times," grinds out solutions to problems like so many Hershey bars. Believers in the theory of the mind as a vending machine will rate human beings accordingly by "degrees" of intelligence, the more intelligent ones being those endowed with bigger and better gears in their brains, as can of course be verified by administering I.Q. tests.

Philosophers believing in the mechanistic myth believe that the solution of a problem is obtained in just one way: by thinking hard about it. They will go so far as to assert that acquaintance with previous contributions to a problem may bias the well-gearred mind. A blank mind, they believe, is better geared up to initiate the solution process than an informed mind.

This outrageous proposition originates from a misconception of how mathematicians work. Our mathematizing philosophers behave like failed mathematicians. They gape at working mathematicians in wide-eyed admiration, like movie fans gaping at posters of Joan Crawford and Bette Davis. Mathematicians are superminds who turn out solutions of one problem after another by dint of pure brain power, simply by staring at a blank piece of paper in intense concentration.

The myth of the vending machine that grinds solutions out of nothing may perhaps appropriately describe the way to solve the linguistic puzzles of today's impoverished philosophy, but this myth

is wide off the mark in describing the work of mathematicians, or any other serious work.

The fundamental error is one of reductionism. The *process* of the working of the mind, which may be of interest to physicians but is of no interest to mathematicians, is confused with the *progress* of thought that is required in the solution of any problem.

This catastrophic misunderstanding of the nature of knowledge is the heritage of one hundred-odd years of pseudo-mathematization of philosophy.

X

The results of mathematics are definitive. No one will ever improve on a sorting algorithm which has been proved to be the best possible. No one will ever discover a new finite simple group, now that the list has been drawn, after a century of research. Mathematics is forever.

We could classify the sciences by how close their results come to being definitive. At the top of the list we would find the sciences of lesser philosophical interest, such as mechanics, organic chemistry, botany. At the bottom of the list we would find the more philosophically inclined sciences, such as cosmology and evolutionary biology.

The old problems of philosophy, such as mind and matter, reality, or perception, are least likely to have "solutions." In fact, we would be hard put to spell out what might be acceptable as a "solution." The term "solution" is borrowed from mathematics and tacitly presupposes an analogy between problems of philosophy and problems of mathematics that is seriously misleading. Perhaps the use of the word "problem" in philosophy raised expectations that philosophy could not fulfill.

Philosophers of our day go one step farther in their misanalogies between philosophy and mathematics. Driven by a misplaced belief in definitiveness measured in terms of problems solved, and realizing the futility of any attempt to produce definitive solutions to any of the classical problems, they have had to change the problems. And where do they think to have found problems worthy of them? Why, in the world of facts!

Science deals with facts. Whatever it is that traditional phi-

losophy deals with, it is not facts in the scientific sense. Therefore, traditional philosophy is worthless. This syllogism, wrong on several counts, is predicated on the assumption that no statement is of any value unless it is a statement of fact. Instead of realizing the absurdity of this assumption, philosophers have swallowed it, hook, line, and sinker, and have busied themselves with making their living with on facts.

But previous philosophers were never equipped to deal directly with facts, nor did they ever consider facts to be any of their business. Nobody turns to philosophy to learn facts. Facts are the domain of science, not of philosophy. And so, a new slogan had to be coined: philosophy *should* be dealing with facts.

This "*should*" comes at the end of a long line of other "*should*"s. Philosophy *should* be precise, it *should* follow the rules of mathematical logic, it *should* define its terms carefully, it *should* ignore the lessons of the past, it *should* be successful at solving its problems, it *should* produce definitive solutions.

"Pigs *should* fly," as the old saying goes.

But what is the standing of such *shoulds*, flatly negated as they are by two thousand years of philosophy? Are we to believe the not-so-subtle insinuation that the royal road to right reasoning will at last be found if we follow these imperatives?

There is a more plausible explanation of this barrage of *shoulds*. The reality we live in is constituted by myriad contradictions which traditional philosophy has taken pains to describe with courageous realism. But contradiction cannot be confronted by minds who have put their salvation in axiomatics. The real world is filled with absences, absurdities, abnormalities, aberrances, abominations, abuses, and *Abgrund*. But our latter-day philosophers are not concerned with facing up to these unpleasant features of the world, nor, to be sure, to any real features whatsoever. They would rather tell us what the world *should* be like. They find it safer to escape from distasteful description of what is to pointless prescription of what is not. Like ostriches with their heads in the ground, they will meet the fate of those who refuse to acknowledge the lessons of the past and to meet the challenge of our difficult present: increasing irrelevance followed by eventual extinction.

ERASING AND REDRAWING THE NUMBER LINE: AN EXERCISE IN RATIONALITY

EDWARD G. SPARROW

I

THE PURPOSE OF THIS ESSAY IS EXTRAVAGANT. I want to make it again respectable to say that mathematics is essentially, and not merely by chance, about the world around us. As rational men and women, we cannot responsibly rest satisfied with the notion that there are two worlds of truth only fortuitously related to one another, one a world of symbolically formulated statements whose truth is to be judged according to their consistency, rigor, and elegance; the other the world of our everyday experience, and especially of our experience of recognizing and naming groups composed of elements of the same kind.

The inventors of modern mathematics are largely responsible for this new double-truth theory. Mathematics is now based on a concept of number which considers numbers something of wholly human invention and, as such, only accidentally related to the world. We are told that numbers compose a continuum, that a plane determined by two straight lines extending indefinitely far to the right and left of, and above and below, a middle point called "zero" is an appropriate image of this continuum, and that any number has as its image a point in this plane and, vice-versa, that every point is such an image.

We also learn that these "numbers" are the "positive" and "negative," "rational" and "irrational," "real" and "imaginary" "numbers," and "zero"; that these elements can be added to and subtracted from one another; and that they can "multiply" and "divide" one another. We have been provided with rules and definitions for performing these operations on such "numbers."

To restore the essential relation of mathematics to the world, therefore, it is necessary to begin by destroying the notion that the "real numbers" form a self-contained system composed of such

written elements of human invention as “+7,” “0,” “-7,” “ $\sqrt{2}$,” and “ π .” The “real number” continuum must be annihilated and its image, the horizontal line, erased. Then it is necessary to see how such a system could have arisen.

Combining the elements of this “real number continuum,” however, yields such fruitful consequences that the system based on them must have much truth in it. Hence it is necessary, for the sake of truth, in the third place, to replace it with another continuum, one whose elements are identical with the destroyed ones but which are not of human invention.

Finally, it is necessary to show that the new elements can be added, subtracted, multiplied, and divided just like the old but that it is unnecessary to resort to arbitrary definitions to do so. At the same time, it must be shown that when these new elements are operated on, the very same results are produced as were produced when the elements of the old one were combined.

Hence this essay. In it I show that numbers do not form a continuum and that therefore the “real number line,” or more simply, the “number line,” does not exist. I do this by showing that the word “number” is used only sophistically when it is applied, on the one hand, to the characteristics of groups and, on the other hand, both to the names of those characteristics and to such pretend names as “+7,” “0,” “-7,” “ $\sqrt{2}$,” and “ π ”—elements of the “number line” which only appear as writings. I also show how the sophistry by which the name “number” comes to be applied not only to genuine numbers but also, at first, to names and then, later, to pretend names, might have developed.

It follows from the fact that the elements of the “number line” are neither all numbers nor all names, that, to the extent that they are anything at all, they are but pretend names, marks on paper, human artifacts, things in themselves, merely elements of an elegant and sophisticated game. As such they cannot have a relation to the world around us, *not even a fortuitous one*. They can relate only to one another and, at that, only through arbitrary definitions.

Along with the destruction of the claim of the number line to represent numbers is destroyed any claim that the rules for combining the “positive” and “negative” “numbers” with one another and with “0” are not mere arbitrary rules for a game.

I then discover a natural continuum of other nameable entities, make a linear image of it, and show that each so-called “real number” corresponds to one of these new entities and has its own linear image.

Finally, I show that these new entities can be added and subtracted with the same results, as can the elements of any group, and that they can be said to “multiply” and “divide” one another, and with the same results, as could the old elements. Accordingly, the definitions for operating with “negative numbers” and “zero,” which before appeared wholly arbitrary, are now seen as necessary. Thus I show that when “negative numbers” are said to “multiply” or “divide” one another, the results must be “positive”; that the product of anything by “0” must be “0”; and that “division by 0” can yield no determinable result and so cannot be allowed.

In a word, I destroy what is false in the number line, show why it is false, and preserve what is true both about it and about the definitions and rules for operating with the entities of which it is said to be composed.

II

A. Numbers Properly So-Called

1. *Groups, Collections, and Multitudes.* Our world presents us with groups, collections, or multitudes of things of the same kind. These things range from the very small—grains of sand—to the very large—galaxies—and from the most concrete—space shuttles—to the most imaginary—Don Quixote’s beloved Dulcinea del Toboso.

When I am presented with a single element in a group, I think of the being which that element primarily is and I name it with the kind of name I call a “common noun.” Thus I use the name “partridge” to designate what I think that bird primarily is.

If there should only be one such bird in a pear tree, I use what I call the “singular” form of its name to designate it. If I should be presented with more than one being of the same kind, however, such as a pair of turtle doves or a trio of French hens, I use the “plural” form of the names, “turtle doves” or “French hens.” Rather than call that plurality a “trio” or “quartet,” I may name it according to some feature of its members that strikes my imagination. I may, for example, speak of an “exaltation” of larks or of a “brace” of orthopedists.

I may, however, in a much more pedestrian fashion, consider the larks simply as components of a group. I may, that is, call them together an assemblage, a collection, or a multitude. When I do

this, I radically change the way I think of the larks and of its exaltation. I mentally strip from each individual its specific and individualizing characteristics and so cease to bear in mind its primary mode of being. I come to consider each merely an indivisible and featureless element in a collection of ones identical to it. I let it become, for me, a mere collection-component.

By doing so, I also strip the group of its special character and so of the possibility of assigning to it such a name as "exaltation." I transform the exaltation into a mere aggregate composed of indivisible identical elements. And I think of the composition of that group as being able to remain through the successive addition of the identical elements.

2. *Numbers.* As soon as I come to consider a group as if it were composed of identical elements, I begin to want to know more about it in order to distinguish it from other groups. In other words, I want to name it. (It may, indeed, be my desire to do this that leads me initially to strip individuals mentally of their primary mode of being.)

Now I distinguish things around me from one another and name them by characterizing them as, for example, blue, hot, or sweet. And so, if I am to distinguish one group from another, I must find a way of characterizing it as such.

The most immediate way to characterize and name groups as groups, however, is to determine them with respect to what constitutes them as groups, that is, with respect to their being composed by the successive addition of indivisible identical elements.

To make this determination I first invent a determinate and unchangeable sequence of names, for example, one, two, three, and so on, and then, one by one, I successively pronounce each of these names over each element in the group.

This procedure works. I have defined my sequence of names in such a way that any name, when pronounced in proper order over the last one in a series of individuals composing the group to be characterized, names, and so characterizes, the group over which it is pronounced. When, for example, the word "seven" has been pronounced over the last element in a series of elements to be characterized, it names the characteristic of the group of elements over which the names occurring previously in the sequence have been successively pronounced.

The name "seven" names the *number* of the group. A *number* is the *quality* of a group, collection, or multitude, with respect to its being composed of elements of the same kind.

It might be objected to this definition of "number" that "number" is only secondarily the name of the *quality* of a group because the word is, primarily, a synonym for "group," "assemblage," "collection," "multitude," or "manyness," as in the phrase "there are a number of people in the room." This is fair enough. But we no sooner hear that there are a number of people in a room than we find we can ask *what* their number is. We want to know how many there are, and, for us, to learn "how many" there are is to learn their number. But to ask "how many" of a group is to ask for the name of a quality, characteristic, attribute, or mode of that group. Hence I feel justified in saying that a number is a nameable determination, or specific characteristic, of a group *as* a group.

The procedure for determining and naming the characteristic of a group that I have just described is what is called "counting." It is most important to note that when we count we identify two things which are in themselves wholly disparate: the number of a group and the name of that number. It is this identity that is responsible for the fact that the word for "number" in many languages is akin to, if not as in Spanish the same as, the word for "name."

The same identity leads us in English to say that when we "tell a tale" we simultaneously mean by "tale" both *that which* is told, that is, the events themselves, and the *words* in which it is told. It is no accident that "tale" is the old English word for "number."

Because a number is a quality or characteristic of a group, a "way" of being many, I may call it the "mode" of a group. Hence I may also call such words as "two" or "three" indifferently "names of modes of groups," "names of numbers," or, more simply, "number names."

There is an important difference between the modes of groups and the modes of individual beings. Modes or qualities of individuals, such as "blue," "hot," and "sweet," are predicable of every part of the individual to which they are attributed. "Three," however, is not predicable of every part of the group whose mode is called by that name. It is only predicable of the collection as a whole.

I can name each number by a written name as well as by a spoken name. The group mode I name in English by the word

“seven” and in Latin by the word “septem,” I can as well indicate by the nonphonetic writing “VII” (Roman numeral) and by “7” (Arabic numeral).

3. *Operations With Numbers.* I can add numbers to numbers. I can, that is, combine two modes into one by adding to a group characterized by one mode a group of as many elements of the same kind as I please characterized by another mode. Similarly, I can subtract numbers from numbers.

I can multiply numbers. That is, I can arrive at a different mode of any group by adding to the group, as many times as I please, as many elements of the same kind as it itself contains. I can also divide numbers, that is, decrease any group by taking away from it as many equal groups of elements as I can until I exhaust it or until some elements are left over which form a smaller group than the one which I am taking away.

Numbers by themselves, however, cannot add, subtract, multiply, or divide one another. Addition, subtraction, multiplication, and division are operations which I perform on groups and, during these processes, the numbers, the modes of the groups, are entirely passive. Being but characteristics of groups of elements, numbers cannot act in any way.

B. Numbers Improperly So-Called: Extensions of the Name “Number” to Make it Apply to Names and Pretend Names

I have said that I will destroy the claim of the “number line” to be an image of a “number continuum” by showing that its elements are neither numbers, nor names of numbers, but pretend names. I will now do this by showing that the word “number” is only sophistically predicated, first, both of numbers and of names of numbers and, second, both of these names and of pretend names. I will also show how it is that this sophistry might have happened.

1. “7,” etc.—*Number Names.* I want, for many practical purposes, to predict what will happen when I combine groups in some way, but I can’t add, subtract, multiply, and divide actual groups whenever I want to know what modes will result when I do these things to any one of them. Once I learn to identify the mode of a

group (the number) with a name, however, I can begin to make such predictions. I can, that is to say, solve problems that involve the combination and separation of groups.

I can construct and memorize addition and multiplication "tables" of number names and formulate rules for these operations. And then, by consulting these tables and using those rules, I can obtain the results of combining groups without actually having to combine them.

To combine number names in lieu of groups ever more efficiently, I adopt the simple Arabic positional notation for the names of the numbers, and begin to write such things as

$$7 + 5 = 12$$

and

$$7 \times 5 = 35,$$

and to put such written statements into such words as

seven plus five is twelve.

and

seven times five is thirty-five

as if "seven" and "five," which are names of numbers, were actually adding and multiplying one another.

The identity between numbers and the names of numbers that I have to make in order to count and solve problems quickly leads me to apply the word "number" to the *names* of the numbers as well as to numbers themselves. Since the groups whose numbers are named by these names have, as groups, a certain kind of unity and integrity, I not only call these number names "numbers" but "whole numbers" or "integers."

Alas! A first but fatal step in the extension of the word "number" from its application to genuine numbers to its application to nonnumbers, its extension to number names, has been taken.

2. "Zero." Fueled by my furious desire to solve problems and my enthrallment with the power that my writings have to help me to arrive at solutions, the extension of number names to nonnumbers continues apace. In order to learn, for example, what number added to a number called "five" yields a number called "twelve," I invent

and include among my written names a name for the number that now is unknown and sought for. I invent, in other words, the indeterminate number name " x ," and I compose such questions as

$$5 + x = 12?$$

When I subtract 5 from both "sides" of this question, I write the answer

$$x = 12 - 5$$

or

$$x = 7.$$

Then, further impressed by this power to solve problems by setting up relations between knowns and unknowns, I begin to think that the " x ," which refers to an indeterminate number name in the question

$$5 + x = 12?$$

must also refer to an indeterminate number name in the question

$$x + 7 = 7?$$

I try to answer this question also, that is, to "solve" this "equation" for the unknown x , and I write the answer

$$x = 7 - 7.$$

There is evidently no number of which x can in such a case be a name. I remain determined, however, that x in this expression should name something, and so I look for a written way of saying unambiguously that the answer to the question "what number?" is a "something" that is also at the same time a "nothing." I go hunting and find that the Arabic name "zero," written "0," means emptiness, nonbeing, or nothing, that is, no number.

And so I take that "0" and legislate that it is the answer to my question. So I now write

$$x = 0$$

and begin to include "0" in my equation-questions just as readily as I write the number name "7."

But I have allowed myself to call the written number name "7" a "number," and I have used it, like "0," to answer number questions (solve equations). Hence, although 0 is not the number name of

any number but, rather, the name for “no number,” it seems reasonable to me to call 0 a “number” as well.

Alas! I have taken the second fatal step in the extension of the word “number” from genuine numbers to nonnumbers. Only this time the extension is not from number to number name but from number name to pretend name.

3. “*Negative Integers.*” I am exhilarated by imagining the possibility of making mere written marks designate whatever will answer any written number question that has the indeterminate number name “ x ” on the side of an “=” sign.

I continue. I write

$$x + 7 = 5?$$

and demand an answer to this question too. Taking seven away from both sides, I get as my answer

$$x = 5 - 7$$

for which I write

$$x = -2.$$

I write my “answer” as “-2” because the question

$$x + 7 = 5?$$

is asking me to find a meaning for x such that when that meaning is added to 7, it will produce 5. But producing 5 from 7 by way of addition involves adding something to 7 which diminishes it by 2, and “-” is the sign of diminution. To indicate, therefore, that the meaning of x is a “number” whose written name is “2” but which, when combined with a number whose written name is “7,” does not increase it but, rather, decreases it, I prefix the “-” mark to the “2.”

In view of this, I now make myself believe that there are just as many meanings for x that diminish the “numbers” to which they are added as there are “numbers” that increase them. So I invent as answers to such questions as

$$x + 7 = 5?$$

the collection of ordered marks -1, -2, -3, and so on, in complete imitation of the “numbers” 1, 2, and 3.

But I call such written number names as 1, 2, and 3, and the pretend name "0," "numbers" and "integers"; and all these have in common that they can be considered written answers to written number questions. These new marks are also written answers to number questions. So it seems reasonable to me to call the new marks "numbers," "integers," and "whole numbers." Because of their diminishing faculty, I call them "negative numbers," "negative integers," or "negative whole numbers."

To solve problems involving "0" and "negative numbers," I define operations with the "negative integers" and with "0" so as to have the multiplication or division of two "positive" or "negative" "integers" yield a "positive" product or quotient and so as to have the multiplication or division of two "positive" or "negative" "integers" by or into one another, or vice-versa, yield a "negative" product or quotient. Multiplication by 0 and division into 0 is arbitrarily defined as yielding 0, and division by 0 is simply ruled out.

4. *"Positive Numbers," "Positive Integers," and "Positive Whole Numbers."* Once I have fashioned written names for "numbers" that answer number questions by diminishing the "numbers" to which they are added, I realize that the written forms of such number names as "7" must now be distinguished from these new "numbers." They are distinguished from these because the numbers that they name increase, rather than decrease, the numbers to which they are added. Hence the old names can be distinguished from the new by adding as a prefix to the old the sign of increase, "+," an abbreviation of the Latin "et," and by giving them a distinguishing name. Calling them "positive numbers," "positive integers," "positive whole numbers," "counting numbers," or "natural numbers," will do.

Alas! I have taken a third and fatal step. Transforming "7" into "+7," I have taken from "7" its meaning of number name and turned it into a pretend name, a mere mark.

5. *"Rational Numbers."* I now think of " x " as representing not only "positive" and "negative" "numbers" and "integers," as well as "0," but also ratios (or fractions, proper and improper). I then take

$$x = 2/3 \quad \text{and} \quad x = 9/8$$

as answering the questions

$$3x = 2? \quad \text{and} \quad 8x = 9?$$

I write " $2/3$ " and " $9/8$ " as answers and call them "numbers."

Since ordinary spoken number names like "two-thirds" or "nine to eight" can be associated with these "numbers," I call them "rational" numbers. And since such "fractions" increase that to which they are added, I characterize them also as "positive." But since the "positive" "integers" can also all be spoken, if I am to form a group called "rational numbers," I must include the "positive integers" in it too.

But I can also compose the new marks " $-2/+3$ " and " $+9/-8$ " (that is, by arbitrary definition $-[2/3]$ and $-[9/8]$), as answers to such number questions as

$$x + 2/3 = 0$$

and

$$x + 9/8 = 0.$$

These new elements, since they must diminish the "numbers" to which they are added, must be, like the "negative integers," prefixed with the "-" sign and must also be called "negative."

But since I can speak these pretend names as well, I must place these pretend names among the "rational numbers" also and, with them, include in that group the "negative integers."

I thus have as elements "0," all the "positive" and "negative" "integers," and speakable "ratios." And since I call each of these a "number," I call them as a group the "rational numbers."

6. "*Irrational Numbers.*" I now want to formulate answers to such number questions as

$$x^2 = +2?$$

To do so, I invent the name

$$\sqrt{+2}$$

and I call this expression a "number" because, like the others, it answers a number question. Since there is no number for which it can be the name, however, I call it an "irrational number."

But I have a rule that says that when a negative "integer" "mul-

multiplies" a negative "integer," the result is "positive." $+2$, however, is positive. Hence, extending the rule to the multiplication of two such "negative irrational" elements by one another, I must also call

$$-\sqrt{+2}$$

an "irrational number."

But the circumference of a circle has an unspeakable ratio to its diameter (" π "). In fact, there seems to be no limit to the collection of unspeakable ratios. Hence all such ratios also deserve to be called "irrational numbers."

The group of "positive" and "negative" "numbers" must therefore now be expanded to include not only the "positive" and "negative" "integers," and speakable "ratios," but also the "positive" and "negative" "irrational numbers."

7. "*Imaginary Numbers.*" I do not stop at irrational numbers. I ask, and want to find an answer to, the question

$$x^2 = -1?$$

At first glance it seems that there is an answer:

$$x = \sqrt{-1}.$$

One of my rules, I have said, requires that when a "positive number" multiplies a "positive number," or a "negative number" a "negative number," the "product" must be "positive." It follows, accordingly, that

$$(+1)^2 = +1$$

and that

$$(-1)^2 = +1.$$

But if

$$x^2 = -1$$

it follows that if I "take the square root" of both sides of this expression, then

$$x = +1 \quad \text{or} \quad -1.$$

However, if I "square both sides" of either of these expressions, I get

$$x^2 = +1$$

and not what I want, namely,

$$x^2 = -1.$$

Hence,

$$x^2 \text{ cannot} = -1$$

and this expression is meaningless.

The question

$$x^2 = -1?$$

is therefore also meaningless and, consequently, the expression

$$\sqrt{-1}$$

is equally meaningless.

But I am determined to get an answer to this "question" anyway, so I take the letter "*i*" and assign to it the meaning " $\sqrt{-1}$ " so that when I write

$$x = i,$$

it is as if I had written

$$x = \sqrt{-1}.$$

I then make multiples, ratios, and negatives with "*i*." Since "*i*" "solves" a number question, I call it a "number" too; but because it is altogether meaningless, I call it an "imaginary" number. Any "number" with which it is mixed, whether "positive" or "negative," I call a "complex number."

To distinguish all the other "numbers" from these "imaginary" ones, I call the old ones the "real" "numbers."

8. *"Numbers" as Line Segments.* I cannot think of all these elements as "numbers" without at the same time thinking of them as homogeneous with one another. And since I can compute the "value" of each in terms of a sequence of digits, I think I can place them all in an order of increasing and decreasing "size."

Once I do that, however, I see I can make images of them all, including "0," which will reflect their homogeneity. I notice that "+7" and "-7" have something in common. "+7" names something which is in some sense as "distant" from "0" as is "-7" but yet somehow opposed to it. I also notice that "+7," without being opposed to "+1," must yet be seven times as "distant" from "0" as it.

And so I begin to think of the "numbers" geometrically. I begin to consider them all as linear "distances" and line segments.

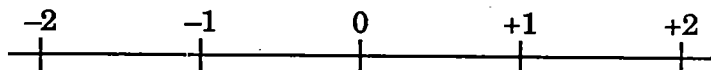
I then proceed to divide the totality of these line segments (and their names, for I now in no way distinguish them from their names) in two ways. According to the first way, I separate them into those which extend vertically and those which extend horizontally. I make the "imaginary" numbers vertical segments and the "real" numbers horizontal ones. According to the second way, I identify the "positive numbers" with segments extending either horizontally to the right or vertically upwards. I identify the "negative numbers" with segments extending either horizontally to the left or vertically downwards.

Thus each "number" or line segment is at the same time either real or imaginary (vertical or horizontal) and either positive or negative (rightwards and upwards or leftwards and downwards). Each is, therefore, either real-positive, real-negative, imaginary-positive, or imaginary-negative.

I call the "value" of 0 to +7 the same as that from 0 to -7 and I write it " $|7|$." I call this "value" the "absolute value of 7." My use of the word "absolute" in this context betrays the languishing but forgotten presence in my memory of a genuine group of swans a-swimming and of the name of that group.

9. *The "Number Line."* Once I have all my line segments organized, I place each one on top of another according to whether it is positive or negative, real or imaginary, and whether it is greater or smaller than it. I make the "positive numbers" go to the right of, and perpendicularly above, a middle point, and the "negative numbers" go to the left of, and perpendicularly below, that point. I call the point "0."

The segments must evidently extend indefinitely far above and below, and to the right and left of, "0." Thus I get the horizontal line



and a thoroughly analogous vertical one divided into equal parts by multiples of the length " i ." I call the horizontal line the "number continuum," "number line," or "real line."

10. *Criticisms.* (a) *Of "Numbers."* It should be evident by now that I have sacrificed my rationality to my desire to solve problems. I have sold my birthright as a human being for a mess of equations. That is because I have let myself fall into equivocation and self-contradiction.

As soon as I learn to combine number names as if I were combining the modes of groups, of numbers, I begin to equivocate, that is, to apply the same name to two radically different kinds of things. I forget that there is a profound difference between a name and what it names. To be more specific, I take the spoken English name of a number, of a group mode, "seven," or "7," and come to think and speak of "seven," or "7," as if these names were themselves numbers. Even worse, I come to think that such an expression as

$$7 + 5 = 12$$

means something by itself and need not imply the actual or possible existence of the three groups whose modes bear the names "seven," "five," and "twelve."

A second equivocation occurs when "7" is taken to mean ambiguously either "+7" or "|7|."

However, when I say that such things as "+7," "0," "-2," "2/3," "-9/8," " $\sqrt{2}$," " π ," and " i " are "numbers," I go beyond mere equivocation and rise to the level of self-contradiction. "7" is equivocally, but forgiveably, called a "number" because it is the name of a number, that is, of the mode of a group, of an actual or possible collection of identical elements in written form. Its primary association with a genuine group can therefore always be recovered. Indeed, it is only because of this continuing primary association that I can use it to answer number questions at all and why it is called an "integer."

"0," however, is neither a number nor the name of a number. No group can be in the mode of "no number," and so no name is able to name that nonmode. To call "0" a "number," therefore, is to pretend that something which means "no number" can be or name a "number." This is clearly self-contradictory.

Self-contradiction also occurs among the "positive" and "negative" "integers." The former, although they purport to name numbers which, when added to other numbers, increase them, in fact transform the number name "7" into "+7," and so turn it into a mere mark on paper. The "negative integers" purport to name

numbers which, when they are combined with other numbers, or even with themselves, diminish those other numbers rather than increase them. Such numbers are unnameable, however, for no such number exists or can exist. Any number, when combined with another number, cannot but increase it. Hence these things, being neither numbers nor number names, are merely pretend numbers, mere marks on paper. The same difficulties arise with the entities which purport to name "rational" and "irrational" "ratios" and "imaginary numbers."

One might object that the extension of the use of the word "number" to designate genuine numbers as well as the elements of the "number line" is appropriate because we can always use a word to mean whatever we want it to mean. This is true, but the objection, nonetheless, cannot stand. No word can ever be stretched to refer univocally to beings of such different kinds as names, what the names name, and nonnames, and if an attempt should be made to have it do so, we shall have to find a different word to distinguish what we formerly called numbers from their names.

Because of all this sophistry, the definitions for operating with "negative" line segments and with "0," although they may produce consistent results, cannot but be definitions for playing sophisticated games.

(b) *Of the "Number Line."* Since the "number line" is composed of segments which are images of these so-called "numbers," and since none of them is in fact a number, we see that the "number line" is improperly called such.

Our first impression, when we try to understand it, is that its elements are two incommensurable kinds of things, genuine names of numbers and of ratios, and pretend names, names which do not name anything.

On further inspection, however, we see that its elements are indeed all of the same kind, but they are neither numbers, nor names of numbers, nor even pretend names. Although not initially defined as such, its elements have become but line segments which have squiggles for their names, human artifacts that comprise and define a universe of their own.

Despite claims that they have an accidental relation to the world, *such segments and squiggles cannot have any.* Their generation has been explicitly cut off from all connection with genuine groups, and so they are not even symbols of them. No rational person should spend time dealing seriously with them.

It follows that by using the so-called number line to illustrate numbers, and by teaching children definitions for operating with its elements as if these elements were genuine numbers, the true numbers are prevented from being distinguished from what are only improperly called numbers, and mathematics is made to seem a game. Future citizens are not only robbed of the chance for their first delight in the ordered knowledge of being, but are also infected with the malignant virus of nominalism.

III

The "number continuum" has been destroyed and the "number line" erased. The definitions crafted to enable us to combine "0" and the "negative numbers" with the "positive numbers" and with one another have consequently been rendered meaningless.

The "number line," the point called "0," and the definitions associated with combining its elements have proved so fruitful, however, that there must be some truth in them, and that truth must be preserved. To preserve it, a line composed of elements that are perfect analogues of the "positive" and "negative" "numbers," as well as a point that is a perfect analogue to "0," must be discovered. It must be possible to perform addition, subtraction, multiplication, and division with the elements of this line and with the new "0" without having to resort to arbitrary definitions for these operations. And when these operations are performed with these new elements, the same results must be produced as used to be produced when I operated with the old elements according to the old definitions.

These three things are possible. To prove it, I will show a continuum of combinable elements, and a "zero," which are not founded on pure human volition and so neither on equivocation nor on self-contradiction.

I will show that I can use a straight line extending indefinitely far to the right and left of a middle point as an image of this new continuum, and I will show that all the points on the "number line," including "0," coincide with the points on this new line.

I will, in addition, show that the elements of the new line can be added to and subtracted from one another and that the resulting sums and differences are the same as the sums and differences that are produced when the elements of the old line are added and subtracted. Finally, I will show that, by following elementary geo-

metrical principles, these elements can multiply and divide one another and yield the same products and quotients as the products and quotients which the arbitrary definitions yield. More specifically, I will show that two "negatives" multiplying or "dividing" one another must yield "positive" results; that when "0" is a factor in a "multiplication," or the dividend in a "division," the result must be "0"; and that "division" by "0" is ruled out because such a "division" can yield no determinate result.

A. The Ratio Continuum

In order to show these things, I have first to say something more about ratios.

A ratio is what an extended thing or a group (the "antecedent") has within itself by virtue of which it is quantitatively "of" another of the same kind as itself (the "consequent"), when it (the antecedent) is compared quantitatively with that consequent. Except in the case of the ratio of identity, when the antecedent and the consequent are equal, there is always a difference between the antecedent and the consequent, and that difference is always composed of elements of the same kind, as are the antecedent and the consequent.

The ratio is not itself that difference. It (the ratio) does not exist *between* the antecedent and the consequent. It is, rather, that which, in the antecedent, makes it quantitatively comparable to the consequent. One magnitude or group may be double another, or half of it, but being double or half is not the difference between the two. It is what is in the one that makes it comparable, in a quantifiable way, to the other.

If a first magnitude or group evenly contains another, or aliquot parts of another, more times than a third does a fourth, the first can be said to have a "greater" ratio to the second than the third has to the fourth. A magnitude which contains another three times, for example, has a greater ratio to that other than one which contains another only twice. Similarly, having a "lesser" ratio to a second than a third has to a fourth is said of a magnitude or group which is contained by that second a greater number of times than the third is contained by the fourth.

A magnitude's having the "same ratio" to a second that a third has to a fourth can be said of a magnitude or multitude which contains or is contained by a second the same number of times that the third contains or is contained by the fourth.

The concepts of "greater ratio," "lesser ratio," and "same ratio" do not become insignificant when, as in the case of a square and its diagonal, there is no possibility of determining, and so of saying in words, just what aliquot parts of the antecedent or of the consequent "go evenly" into the other term. It is intuitively clear that the ratio of the diagonal of any square to the side of that square is the same as the ratio of the diagonal of any other square to the side of that square.

It is also intuitively clear that if I put two equal magnitudes in a ratio to each other and gradually increase or decrease the antecedent while I keep the consequent constant, I will produce an infinite series of ratios. Half of these ratios will have their consequents greater than their antecedents and the other half will have them less. Any ratio whose antecedent is greater than another antecedent will have a greater ratio to that constant consequent than has the second antecedent, and, conversely, any ratio whose antecedent is less than another antecedent will have a lesser ratio to that constant consequent.

Evidently, then, given a constant consequent and a varying antecedent, there is an indefinitely great continuum of ratios each of which is simultaneously greater and lesser than any other.

B. An Image Of The Ratio Continuum

It is evident, in the light of all this, that given a constant consequent, any ratio whose antecedent is greater than that consequent can be represented by a line conceived as tending to the right and that the inverse of that ratio can be represented by the same line now conceived as tending towards the left.

It is also evident, *given an antecedent always greater than a constant consequent*, that whenever that antecedent is increased or decreased, the length of a right-tending line which represents its ratio to that consequent must correspondingly change. *Given, similarly, an antecedent always less than the same constant consequent*, whenever the antecedent is increased or decreased, the length of its representative left-tending line must also change correspondingly.

Given, then, line segments representing all possible ratios, I can relate the lengths of these segments and their tendencies to one another in three ways. I can relate their lengths and their tendencies *simultaneously, separately, or both simultaneously and separately*.

By conceiving them as placed one on top of another so as to form a line of indefinite length all the segments of which, simultaneously tending right and left, represent both the ratios and their inverses, I can relate them *simultaneously*.

By making the left ends of the right-tending segments coincide with the right ends of the left-tending ones, I can produce another line. This line is also of indefinite length, but because its right-tending segments are absolutely distinguished from the left-tending ones by the common extremity of all the segments, it relates the two classes to one another *separately*.

Finally, I can relate the segments to one another *both simultaneously and separately*. I can produce a line of indefinite length by putting them, as before, end to end with a common endpoint. But then I can go on and invest any set of equal segments of that line with simultaneously contrary tendencies no matter on which side of the common endpoint those segments may be located. For reasons which will become clear, I choose the latter pattern.

I will now construct the image of the continuum of ratios by drawing a line which harbors throughout its whole length two dynamic contrary directional tendencies and which is yet divided into two equal parts by a point.

Let there be the two extended quantities

A _____ B and C _____ D

such that AB is greater than CD .

Let AB , the antecedent and greater, have *any ratio whatever* to CD , the consequent and lesser, and let this ratio be named “ $+r$ ” and “positive.” Let the “ $+$ ” mark placed before “ r ” (for ratio), and the name “positive” applied to “ r ,” mean the same thing, namely, that the antecedent of “ r ” exceeds its consequent.

Let $+r$ be imaged by any finite right-tending line and the line itself be called “ $+r$ ”:

 $+r$

Let the mark “1” be placed before $+r$ to signify that the ratio $AB:CD$ has been taken once and that one image of that ratio has been made. Then both $+r$ and its linear image can be called “ $+1r$ ”:

 $+1r$

Now $CD:AB$ is the “inverse” of $AB:CD$, so that if I were to relate them *simultaneously*, I would use the same line as an image of both.

But I have chosen to relate the lengths and tendencies of $AB:CD$ and $CD:AB$ both *simultaneously and separately*. Therefore, I will let $CD:AB$, the inverse of $+r$, be represented by a left-tending line placed in a straight line with $+1r$, of the same length as it, and such that its right extremity coincides with the left extremity of $+1r$. I will also place the mark “-” before “ r ” to differentiate it from $+r$, and give to $-r$ the name “negative.” And since $-r$ is as long as $+1r$, let it be called not only $-r$ but “ $-1r$ ”:

$$\begin{array}{c} -1r \text{ ————— } | \text{ ————— } +1r \\ \text{ } \end{array}$$

My line will relate the lengths and the tendencies of the ratios *simultaneously and separately*. Hence any segment of the r line, read from left to right, which is marked with a “+” and called “positive,” is the image of a ratio whose antecedent exceeds its consequent. The same segment, however, read from right to left, can be taken as the image of a ratio marked with a “-” and called “negative.”

Every ratio has a duplicate, or double, of itself, as does its inverse, and so I can name the duplicates of those ratios “ $+2r$ ” and “ $-2r$,” respectively, and represent them also as straight lines with direction. When I do that and then superimpose those linear images on the r line from the middle point, I make a line twice as long as the line from $+1r$ to $-1r$. I label the new endpoints “ $+2r$ and “ $-2r$ ”:

$$\begin{array}{c} -2r \text{ ————— } -1r \text{ ————— } | \text{ ————— } +1r \text{ ————— } +2r \\ \text{ } \end{array}$$

$+2r$ is now evidently double $+1r$ and $-2r$ is double $-1r$. On the line, then, as among the ratios, the name “2” signifies something common to the two names—duplicity or twiceness. This is the twiceness that the $+2r$ and $-2r$, the duplicate ratios of $+1r$ and $-1r$, are of $+1r$ and $-1r$, and it is the twiceness that their images, the lines from 0 to $+2r$ and from 0 to $-2r$, are of the lines $+1r$ and $-1r$. It is also what is usually called the “absolute value” of two “real numbers,” but now in a much more intelligible form.

I can evidently continue compounding $+r$ and $-r$ with themselves, and adding their images, $+1r$ and $-1r$, to one another as long as I please. If I label the successive endpoints of my ever-growing number of line segments with the names of the triplicate, quadruplicate, and ever-increasing ratios, that is, $+3r$, $4r$, and so on, I will soon have written names which, except for the presence

of the letter " r ," which reminds me that it is ratios I am primarily dealing with and not line segments, are identical with the "positive" and "negative" "integers," and my line will, like the "number line," be indefinitely long.

Having marked the names of the "positive" and "negative" "integers," I can readily identify other points. I first take the sub-duplicates of $+1r$ and $-1r$, and I mark the endpoints of the lines which image them with the names " $+1/2r$ " and " $-1/2r$ ":

$$\begin{array}{ccccccc} -2r & & -1r & & -1/2r & & +1/2r & & -1r & & +2r \\ & & & & | & & & & & & \end{array}$$

I do the same with the subtriplicates of $+r$ and $-r$ and make the names " $+1/3r$," " $-1/3r$," and so on.

Then, keeping CD constant and AB always greater than CD , I continually increase or decrease AB . Continually changing AB continually changes the size of $+r$ and generates a continuum of new ratios $+r'$. I can then proceed to make and name images of this continuum. Some of these are greater than $+r$ and some are less. Each, however, determines a new point on the $+r$ line. And since any ratio $+r'$ has its inverse, $-r'$, each inverse of $+r'$ also finds its image on the $-r$ line.

Among the images of these new ratios $+r'$, I now find and name the point which terminates the length which is the mean proportional between the lengths marked $+2r$ and $+1r$. I also find and name the mean proportional between the lengths of their inverses, $-2r$ and $-1r$. I use the symbols $+\sqrt{2}r$, $-\sqrt{2}r$, and so on to name these new segments. I also think of the length $+1r$ as if it were the diameter of a circle and mark off on the $+r$ line a length which bears to $+1r$ the same ratio that the circumference of a circle bears to its diameter. I call this point $+\pi$.

As I continually decrease AB , it approaches equality with CD and, therefore, its ratio to CD approaches the ratio of identity, that is, the ratio whose antecedent equals its consequent. The same is true if I continually increase AB when AB is less than CD . The lines representing $+r'$ and $-r'$, therefore, as AB approaches equality with CD from both directions, get smaller and smaller and shrink towards their common end point from both directions. Now since there is no difference between the antecedent and the consequent of the ratio of identity, that ratio is neither a $+r'$ nor a $-r'$. Hence, also, no line extending from the central point of the $\pm r$ line can be

an image of it. And yet the ratio of identity can become either $+r'$ or $-r'$ because its antecedent and consequent can be increased or decreased. Hence that ratio must have an image on the $\pm r$ line.

There evidently is such an image. The point on the $\pm r$ line towards which the linear images of $+r'$ and $-r'$ are converging, and into which, finally, they will merge, that is, the extremity of the $+r$ line and the $-r$ line, is a kind of seed from which all the images of the other ratios can spring indefinitely in both directions. That point, therefore, is the image of the ratio of identity.

What shall I call it? The ratio of identity can have no ratio to any given ratio, for there is no way of adding it to itself so as to have it at some time generate a ratio greater than the given ratio. Nor can a point have a ratio to any given line, since there is no way of continually adding a point to itself so as to have it make a line greater than that line.

But "0" in the Arabic notation signifies "nothing." Hence an appropriate name for a ratio, and for its point image which cannot have a ratio to $\pm 1r$ is "0r" if we let "0r" stand for "no ratio." Let then the name of the point be "0r."

C. Operations with the Images of Ratios

If the "number line" were merely a collection of line segments to which the name "number" had been either equivocally or self-contradictorily given, and if it had not been possible to constitute another line after the erasure of the old one, the definitions crafted for operating with the elements of the old line could be considered merely as the rules for a game. But because the old system has yielded such powerful results, it must be the case that we are finally not dealing with a game.

The transformation of the "number line" into a ratio line, then, must be complemented by showing that its elements can be added to and subtracted from one another just as the elements of the old "number line" and as genuine numbers can. It must also be shown that these elements can "multiply" and "divide" one another according to necessary principles and that when they do, they produce the same results as are produced when the elements of the destroyed line are operated on by arbitrarily made definitions.

More especially, it must be shown that when a "positive number" "multiplies" a "positive number," or a "negative number" a "negative

number," the products of both operations are "positive"; that the result of "multiplying" any "number" by 0, or of "dividing" any "number" into 0, is 0, and that "division" by 0 produces no determinable result.

1. *Addition and Subtraction.* The names of the lengths of the ratio line which represent the ratios of $\pm r'$ to $\pm 1r$ —for example, such lengths as are now named ± 7 , $\pm\sqrt{7}$, $-6/5$, $+2/3$, 0, and π —need but be taken as names of the "numbers" ± 7 , $\pm\sqrt{7}$, $-6/5$, $+2/3$, 0, and π , rather than as what they truly name, directed-length images of the ratios of $\pm r'$ to $\pm 1r$. They then need but be combined with one another to arrive at the same names for sums and differences as are formulated on the addition and subtraction tables founded on the old rules. Since these images of the ratios of ratios have direction as well as size, combining any two with the same direction increases the combination in either direction whereas combining two with different directions decreases the longer of the two in either direction. And since 0 names but a point, adding or subtracting it does not change the length of a line in any way.

2. *"Multiplication" and "Division" of "Real Numbers" by "Real Numbers."* As they stand now, the rules according to which "real numbers" "multiply" and "divide" one another only instruct us, arbitrarily, how to combine elements which are not genuine numbers, nor names of genuine numbers and ratios, nor even pretend names. They are line segments named by squiggles. Genuine significance attaches to these rules, however. I can see that this is so when I realize that the products and quotients that these rules generate are in fact but the ratios which I find when I look for ratios which are fourth proportionals to three other ratios.

(a) *"Multiplication" in Which Zero is Not a Factor and Both Factors are Positive or Both are Negative.* It is easy to show that when two "positive numbers" or two "negative numbers" multiply one another, the result must be "positive." Any "real number," as "real number" and nothing more, can be taken as a ratio. What that particular "real number" is, that is, the particular name of that ratio, indicates the ratio which it has to the arbitrary unit ratio, $AB:CD$. Thus in the name " $+2r$," which I can abbreviate as $+2$, the " r " indicates some ratio of AB to CD , the "+" that AB is greater

than CD , and the “2” that $+2r$ is double $+1r$, the ratio $AB:CD$. This doubleness has as its image on the ratio line the twiceness of the length $+2r$ compared to the length $+1r$.

To “multiply” two “real numbers,” then, is to combine as “factors” the ratios that each of two factor/ratios has to the arbitrary unit ratio $+1r$.

$$+2 \times +3,$$

for example, means that

$$+2r:+1r$$

is to be combined with

$$+3r:+1r.$$

Now the only way to combine two ratios is to compound them with (join them to) one another. But joining them to one another involves naming the fourth proportional to, for example, the ratios $+1r$, $+3r$, and $+2r$. When I compound the two factors (ratios) to be “multiplied,” I ask myself what is the result when

$$+1r:+2r$$

is compounded with

$$+1r:+3r.$$

To compound these two, I first double both terms of the second ratio and write

$$+2r:+6r::+1r:+3r. \quad (1)$$

I then write the identity

$$+1r:+2r::+1r:+2r \quad (2)$$

and, below it,

$$+2r:+6r::+1r:+3r. \quad (1)$$

I join the two left members through the middle term, $+2r$, and apply the definition of compound ratio.¹ I thereby get

¹ Euclid's *Elements*, Bk. VI, Prop. 23.

$$+1r: +6r \text{ cp. } +1r: +2r, +1r: +3r. \quad (3)$$

It is evident, then, from (1) that $+6r$, the "product," is the fourth proportional to the three ratios $+1r$, $+3r$, and $+2r$.

Now the names of the segments on the ratio line are placed so that their lengths coincide with the names of these ratios. It follows, then, that if I rotate the $-r$ half of the ratio line around the point $0r$ for more than a right angle, I can draw a line from the extremity of $+1r$ to the point on the $-r$ line which corresponds to $-3r$. I can also draw another line from the extremity of $+2r$ on the $+r$ line to the extremity of $-6r$ on the $-r$ line, and this line will be parallel to the first.²

What this means is that the product of the two "positive numbers," $+3$ and $+2$, results in a product that must be "positive." The factors are $+3r$ and $+2r$, and so the antecedents of both ratios exceed their consequents. The lines which are their images, therefore, both tend to the right.

But the two triangles formed by the parallels are similar.³ And the sides of these triangles have directional tendencies as well as length throughout their extents. Similarity for them must therefore involve not only proportionality and equiangularity but also directional tendency. Hence if, as in this example, the lines $+1r$, $+3r$, and $+2r$ tend to the right, $6r$, the product, must also tend to the right and therefore be prefixed with the "+" mark and labeled "positive."

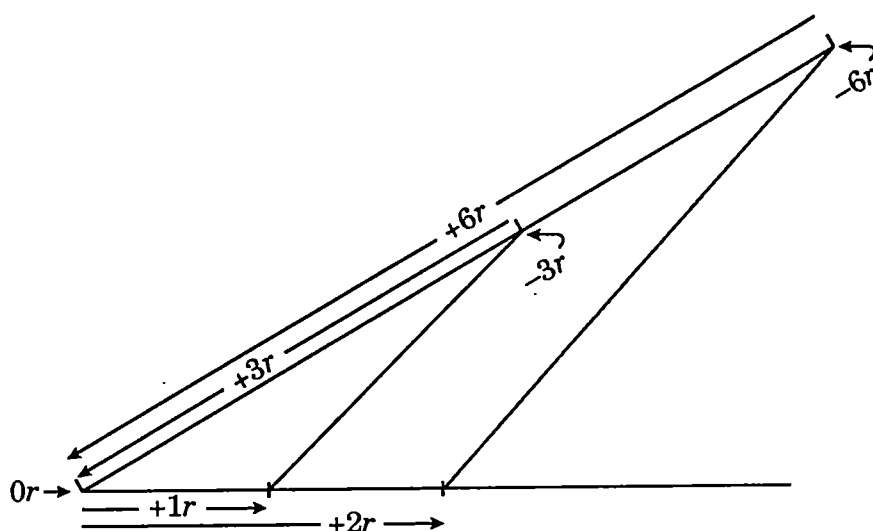
It may be objected to this geometrical proof that since the line from $+1r$ is drawn not to $+3r$ (for $+3r$ is on the $+r$ line itself), but to $-3r$ on the $-r$ line, it cannot cut off from $0r$ a length $+3r$. But the ratio line has been given directional tendency throughout its length, and so the point named $-3r$ refers not only to a length that extends to the left of $0r$, but one which tends that way as well. Hence the same length will tend the other way when it is called $+3r$.

A diagram of the "multiplication" of these two "positive numbers" looks like this:

It evidently makes no difference in this geometrical proof

² Euclid's *Elements*, Bk. VI, Prop. 2.

³ Euclid's *Elements*, Bk. VI, Prop. 5.



whether the factors are integers or any other so-called “positive numbers.”

If both factors should be “negative numbers,” that is, tend to the left, the product would still go to the right. The opposition of direction between the antecedent and the consequent implicit in the first ratio has to be imaged in the lines composing the second. And since the antecedent of the first goes to the right while its consequent goes to the left, and the antecedent of the second also goes to the left, the consequent of the second ratio, the unknown product, must go to the right.

Here, then, I have the reason why two “negative numbers,” when “multiplied together,” produce a “positive number.”

It can similarly be shown that if one factor should extend to the right and the other to the left, or vice-versa, the product must go to the left.

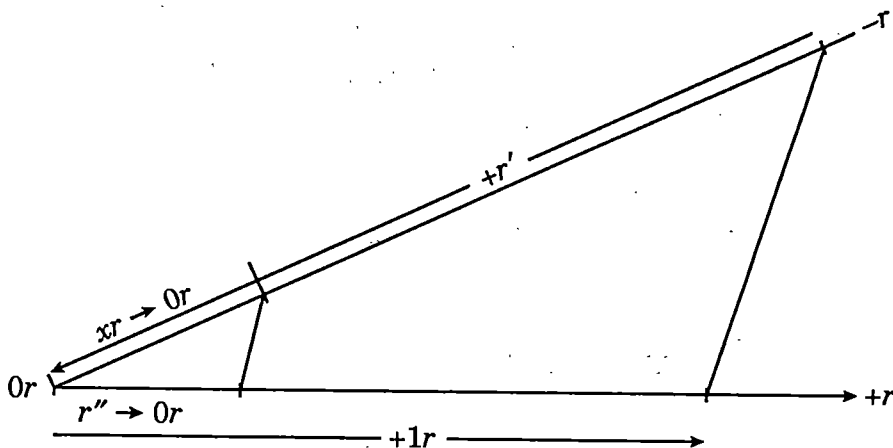
(b) “*Multiplication*” in Which Zero is a Factor. Let there be the proportion

$$+1r : +r' :: 0r : xr.$$

This proportion says that one line going to the right has to another line going in the same direction the same ratio that a point has to some line. What is that line? It is the “line” from $0r$ cut off by a line from $0r$ drawn parallel to the line from $+1r$ to $+r'$. This line is clearly not a line at all but rather a point, the point $0r$ itself, as

is made clear when $0r$ is seen as that into which $+r''$ ultimately vanishes.

The diagram looks like this:



It is evident from this diagram that the definition according to which the product of "multiplying" any "real number" by 0 is 0 is more than an arbitrary assertion. It is necessary and therefore quite justified.

The same definition can easily be justified if the factors should be interchanged, as in the proportion

$$+1r:0r::+r':xr.$$

(c) "*Division*" in Which Zero Is Not a Divisor. It is also easy to show that the "division" of one "positive number" by another, or of one "negative number" by another, must also yield a "positive number" and, conversely, that dividing either a "positive number" by a "negative number" or vice-versa must yield a "negative number."

The direction of the result of dividing $+r'$ by $+r''$, for example, of $+3r$ by $+2r$, is revealed when I draw one line from $+2r$ on the $+r$ line to $+3r$ on the $-r$ line and another line, which will be parallel to it,⁴ from $+1r$ to xr , the fourth proportional to the three ratios $+1r$, $+3r$, and $+2r$.

By "dividing one number by another," I can only mean compounding one ratio with the inverse of the other. Hence to "divide $+3$ by $+2$," that is,

⁴ Euclid's *Elements*, Bk. VI, Prop. 2.

$$+3r:+1r \text{ by } +2r:+1r$$

I must see what

$$+3r:+1r \text{ cp. } +1r:+2r \quad (4)$$

is. That is, I want to find the antecedent of the ratio

$$xr:+1r$$

when

$$xr:+1r \text{ cp. } +3r:+1r, +1r:+2r. \quad (5)$$

But by the definition of compound ratio,

$$+3r:+2r \text{ cp. } +3r:+1r, +1r:+2r. \quad (6)$$

Therefore

$$+3r:+2r:+1r \quad (7)$$

is the quotient I am looking for.

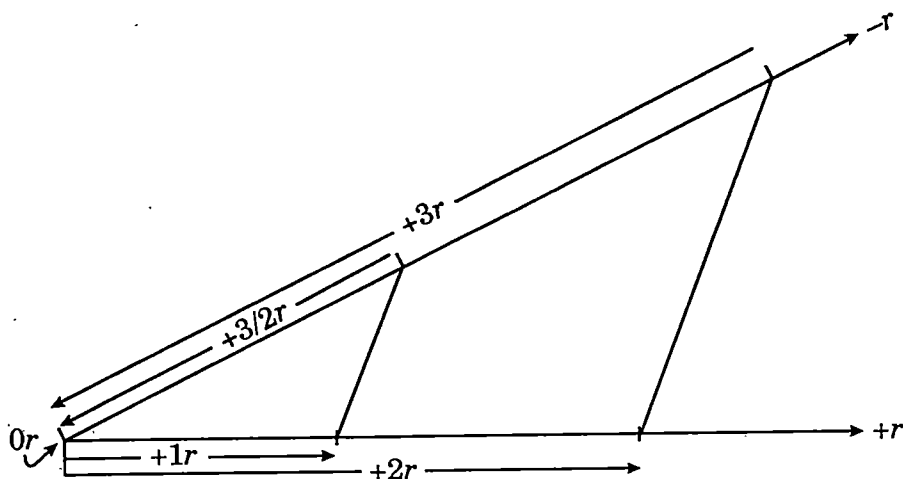
From a combination of (5) and (6), however,

$$+3r:+2r:+1r::+3r:+2r. \quad (8)$$

Therefore the ratio of ratios, $+3r:+2r$ (or, in more common parlance, $3/2$), is the fourth proportional to the ratios $+2r$, $+3r$, and $+1r$.

But then, according to Euclid,⁵ the triangles are similar. And since the directions of the three other segments are all "positive," the direction of the line segment $+3r:+2r$ must be positive also.

This is the diagram for the "division" of $+3r$ by $+2r$ or, more generally, of $+r'$ by $+r''$:

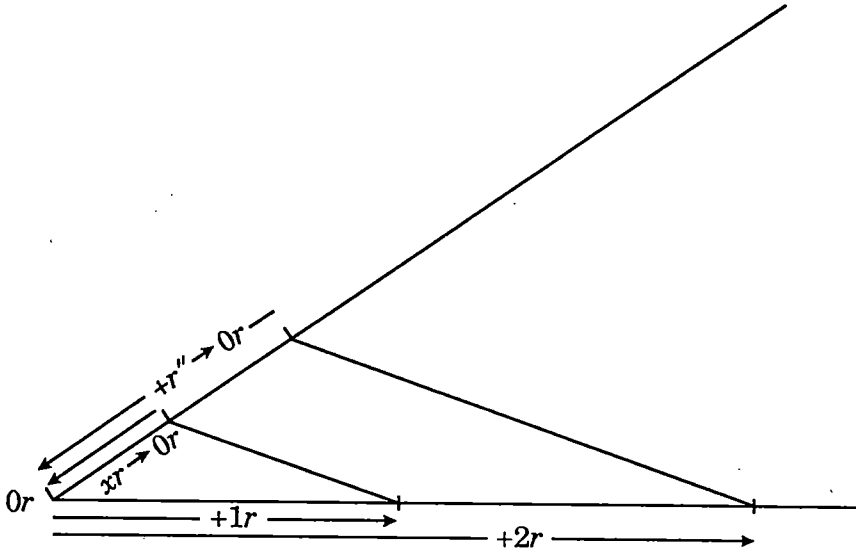


⁵ Euclid's *Elements*, Bk. VI, Prop. 5.

Similar principles apply if I should want to "divide" $-3r$ by $-2r$, $-3r$ by $+2r$, or $+3r$ by $-2r$, or, more generally, $\pm r'$ by $\pm r''$.

This proportion and figure also makes it clear why, when $+3r$ is said to be equal to $0r$, the "quotient" must be $0r$. A line drawn from $+1r$ on the $+r$ line parallel to a line joining $0r$ to $+2r$ on the $-r$ line cannot cut off on the line $-r$ any length xr at all, for it lies along $+r$ line and terminates at $0r$.

The diagram proving this case is as follows:



(d) "Division" in Which Zero is a Divisor. When I want to divide $+r'$ by $0r$, I have the proportion

$$xr : +1r :: +r' : 0r.$$

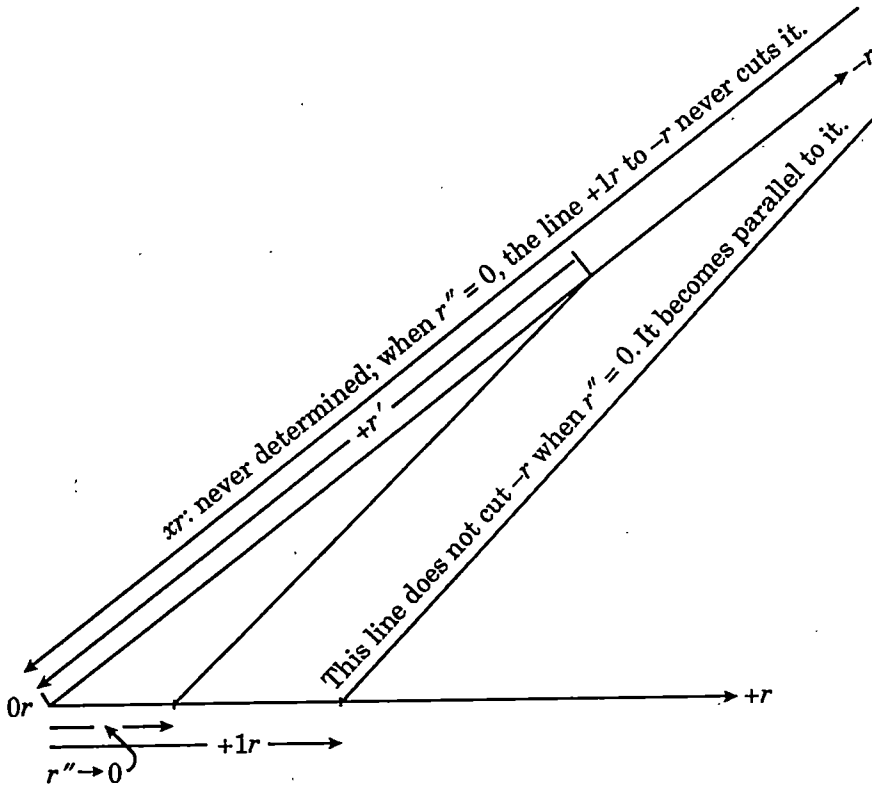
It is easy to show that no determinate result can be obtained for the line xr from this proportion and that therefore the limitation on the definition of "division" of one "number" by another which forbids "division by 0" is justified.

When from the extremity of the very small line $+r''$ drawn to the right of $0r$, a line is drawn intersecting $-r$ at $+r'$, the line from $+1r$ to xr parallel to it is almost parallel to $-r$, and when $+r''$ ultimately coincides with $0r$, and the line from $+r''$ to $+r'$ merges into the line from $0r$ to $+r'$, the parallel from $+1r$ becomes ultimately parallel to $-r$ itself.

Being parallel to $-r$, of course, it never cuts $-r$, and so it never

determines a length xr along it. No line, therefore, can be determined as a result of this operation.

The geometrical proof is as follows:



Thus we have our desired results. The true numbers have been saved, the false ones have been destroyed, the "number line" has been erased, and the sophistries concealed in it have been thoroughly exposed. Among these are (1) the equivocation involved in the disregard of the distinction between numbers on the one hand and the names of numbers and ratios on the other; and (2) the contradiction involved in turning "positive" and "negative" "integers," and "0," into "numbers," and then, first, into pretend names and, second, into squiggle-named line segments.

But a new line, the ratio line, has been generated, and all the "real numbers" of the old line have found a place on the new line. They have become the names of the ratios which any ratio, $\pm r'$, bears to any given ratio, $\pm 1r$, and which any length-image of the former bears to the length-image of the latter.

It has also been shown that the line segments representing the ratios of those ratios to $\pm 1r$ can be added to and subtracted from one another and "0," and that when they are multiplied into and divided by one another, the arbitrary rules involving "0" and "negative numbers" in these operations can be shown to be necessary on the basis of clear geometrical principles.

I think, then, that the extravagant purpose I expressed at the beginning of this essay, to make it again respectable to think that the symbols of mathematics are significantly related to the world of concrete objects, has been at least partially fulfilled. Ratios of ratios are ratios. When they do not relate ratios to one another, ratios relate extended quantities or numbers to one another. And extended quantities and numbers always presuppose extended and multitudinous existing beings. And existing beings make a world of concrete objects.

The mathematician may think that he works with the shades of his windows pulled down, and he may express surprise when he finds that his calculations bear a significant relation to what he sees around him; but, whether he knows it or not, those shades are always up.

Porism: From all this it is manifest that to the extent that mathematics rests on rules governing the multiplication and division of "positive" and "negative" "numbers" by and into one another and 0, it rests, because of the proportionality of the sides of similar triangles, on the famous "parallel postulate," Postulate V, Book I, of Euclid's *Elements*.

IV

Appendix: On Imaginary and Complex Numbers. This study makes it clear that the so-called imaginary numbers and, with them, the complex numbers, are not on the ratio line and why they are not. The antecedent of the ratio named by $\sqrt{-1}r$, or ir , is either greater than its consequent or less. If greater, it and its image will be written $+ir$. Now $+ir$ has to lie to the right of $0r$, but it cannot, for $+ir$ names the subduplicate of the ratio $-1r$, and so its image must lie halfway between $-1r$ and $0r$. It must, therefore, lie to the left of $0r$. But it has been shown to lie to the right of it. The location of its image is in contradiction with itself. Therefore there is no such location.

On the other hand, if the antecedent of ir is less than the consequent, ir and its image will be written $-ir$. $-ir$, then, has to lie to the left of $0r$, but it cannot, for $-ir$ names the inverse of the subduplicate of $-1r$. But the image of the subduplicate of $-1r$ must lie to the left of $0r$, halfway between $-1r$ and $0r$. Its inverse, $-ir$, must therefore lie to the right of $0r$. But $-ir$ has been shown to lie to the left of $0r$. The location of the image of $-ir$ is in contradiction with itself. Therefore there is no location either for ir or for any multiple of ir .

Nor is there, therefore, a "complex plane" on which could lie such a combination of a "real number" with an "imaginary number," as the so-called "complex number" $\pm a + bi$.

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TEMPORALITY AND THE CONCEPT OF BEING

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IF THE OBJECT OF AN INQUIRY is a constituent of the physical world, such as a physical force or a chemical substance, it is not incumbent on the inquirer to raise the prior question of the basis and nature of inquiry itself. This is as true of the bodily functions of organisms endowed with subjective capacities as it is of the physical world within which the organism finds itself. But this situation no longer holds when the object of inquiry involves the nature of subjectivity itself, and not simply the elements and processes of the spatiotemporal world from which subjects have emerged. Two centuries of research in the physical sciences have led to the conclusion that the physical universe is a process of cosmological and biological evolution which stretches back for billions of years prior to the appearance on this planet of any sort of subject, nonhuman or human. The supposition that an inference of this sort can be "theory-laden" to the point of invalidating the evolutionary inference itself will not be taken seriously here. Exactly how evolution is to be understood is certainly a problem, and is in fact one of the problems with which we are here concerned. But the essential premise, the fundamentally important point, is that organisms capable of subjective experience did emerge in the course of that evolution. It follows that if we are to attempt the analysis of a concept which does not refer simply to the physical world itself but both to that world and to the manner of conceiving it, then it is necessary to begin by situating subjectivity relatively to the evolutionary process.

By virtue of its very generality, the word "being" does not refer to any specific element or transaction of the spatio-temporal process. It does not even refer to the constituents involved in the very process referred to by the expression "spatio-temporal process." The word "being" is not meant to be limited to the realities referred to by the terms "space," "time," and "process," but is meant to encompass these as well. More specifically, if an analysis of the concept of

being is to be plausible, it must encompass both the categories by means of which we refer to the physical world, for instance, "space," "time," and "process," and the status of those categories as well. The consequence of this is that it would be misleading to try to elucidate the significance of the word "being" without proposing a reciprocal analysis of how such signifying can occur, that is to say, of what we are to understand by conceptual thinking. In other words, before trying to elucidate the word "being," it is necessary to sketch out a theory of how significant discourse became possible at all: the problem of the concept of being is correlative to that of the being of concepts. The very fact that conceptual thinking is an activity characteristic of an entity which has emerged in the course of cosmological and biological evolution is a clear statement that the possibility of conceptual thinking is itself grounded in some aspect of the evolutionary process which has, in point of fact, given rise to entities possessed of such capacities.

As a counterpoint to the theory which will eventually be sketched out, it is necessary to refer to a conceptual framework which is the spontaneously natural framework of commonsense thinking. The framework constituted by the physical and the mental, treating the realities referred to by these two concepts as basic or ultimate, is perhaps the oldest framework in the history of philosophy. It is a framework which gave rise to the first great systematic analysis of fundamental philosophy, namely, Plato's world system based on his familiar theory of Ideas. In terms of this system, conceptual thinking is held to be an original and autonomous activity of an irreducible soul or "psyche." This activity is dependent on the use of concepts which are viewed as the recollections in individual psyches of Ideas postulated as the eternal existents of an intelligible world of true being. These objectively existing Ideas serve as the real and intellectual foundation on the basis of which the physical universe is held to be organized; these Ideas, that is to say, are the formative principles of the physical world. Plato's system is not our concern here, but it is important to note that by postulating a convergence between his theory of being and his theory of the being of concepts, Plato has formulated a theory which is not compatible with a theory of the emergence of conceptual thinking, or "mind," in the course of cosmological and biological evolution; that is to say, in the course of the evolution of the physical world as such.

If we are to take evolution seriously, recognizing that the human being is the product of billions of years of physical, chemical, and biological processes, it is *a priori* implausible to suggest that the conceptual activities of this being designate, in effect, the actual formative principles of those processes. There is certainly the problem of explaining how human thinking can understand anything about this apparently alien reality called "the physical world." But when the proposed answer is in terms of assuming that in some form or another the essence or being of human thinking is the source of the formative principles of the physical universe, then a quite specific and questionable presupposition is involved. That presupposition is that the concepts expressed in human thinking are either prior to or coeval with physical reality. And of course, this is just what is asserted by the Platonic theory of Ideas. The detailed system through which this assertion is made, a system which is "the philosophy of Plato," is only one of the several analogous modes of making the same kind of assertion. Evolution is a latter-day scientific discovery and could therefore not be taken into account in the Platonic form of this general assertion of the supposed constitutive function of conceptual thinking. And since Platonism was formulated against the background of a long period of religion and mythology, it was perhaps natural that the role of concepts should have been thought attributable to the formative action of a fashioning divinity. But even when the evolutionary principle *was* taken into account, as it was with Hegel, it was still possible to formulate a quasi-Platonic or idealistic version of a reality conceived as an evolving reality of absolute spirit. But here, the presupposition could no longer be a matter of simply supposing that concepts are coeval with physical reality; here, it became a question of holding that what we call "physical reality" is itself but a phase in the self-explicating process of an absolute concept or "concrete universal."

This is not the place to do anything more than simply mention the long history during which the mind component of the matter/mind framework dominated philosophy, with its correlative and gradual move towards the transformation of the physical world into a phenomenological manifestation of the mental conceived as transcendental subject or absolute spirit. Descartes is, of course, the pivotal figure in this development. And yet, paradoxically, the source of Descartes' philosophy lies in the extrusion of any mind factor from the physical universe. Descartes' philosophy seems to

be largely determined by the fundamental requirement of the new physics: a conception of matter which would be purified of all Aristotelian "forms" and scholastic "substantial forms." But the new metaphysical correlate of this new physics was precisely a return to the Platonic conception of a pure and autonomous mind, held to be in essence other than, and therefore unconnected with, a physical reality which Descartes identified with pure extension. The consequent supposition of a radical matter/mind dichotomy—a supposition which is implicitly contradicted by Descartes himself¹—set the stage for what is surely one of the main drives of philosophy since the seventeenth century: that very attempt to integrate the physical into a transcendental version of the mental.

The progressive steps of this movement are well known and go from Malebranche's re-interpretation of Cartesian extension as an "intelligible extension" which is intelligible because the human mind is held to participate in God's idea of extension, to Hegel's conception of the physical as a stage in the self-explicating dialectic of Absolute Spirit. Today, a modified version of this same general direction is vigorously defended in process philosophy² as well as in the holistic interpretations of scientists like Bohm and Lovelock.³ The basic idea is that of the self-differentiating processes of a holistic universe explicating itself by virtue of an immanent principle of organization and of differentiation, suggesting the idea of a sort of *anima mundi* or god-universe in the making. Such approaches no longer use the mentalistic language of absolute idealism, but aim at encompassing the physical and the mental by the use of a terminology which is sufficiently general to be apparently applicable to both. What appears to be lacking in all these formulations is a clear analysis of the kind of mechanisms which would be required to make sense of the emergence of the sentient from the physical and of the conceptual from both. Either some very primitive form of sentience is presupposed as being present from the start, or else these very different

¹ I have tried to demonstrate this in my article "Subjectivity," *Review of Metaphysics* 38, no. 2 (December 1984): 227-73.

² Cf., for instance, the recent monograph by Errol E. Harris, *The Reality of Time* (Albany: State University of New York Press, 1988).

³ David Bohm, *Wholeness and the Implicate Order* (London: Routledge & Kegan Paul, 1980); James Lovelock, *Gaia: A New Look at Life on Earth* (Oxford: Oxford University Press, 1979).

manifestations are described in very abstract and antiseptic terminology as, for instance, "organizational integration."

To set the framework of the ensuing analysis, I will refer to what seem to me to be two incontrovertible but related facts, the one concerning the ontogenesis of sentient and thinking individuals, and the other referring to the analogous phylogenesis which has led to the appearance on this planet of organisms capable of sentience and thinking. The first of these facts is that the real beginnings of each one of us is neither sensations nor thinking, but the specific and fertilized ovum from which each and every one of us has developed. Nor is this a matter of "interpretation"; anyone who is unable to admit to being born of the sexual activity of a father and a mother is simply playing games and cannot be taken seriously at all. It is precisely because the capacities for sensing and thinking have emerged in the course of the growth of this or that specific fetus that the Cartesian dichotomy between matter and mind is simply misleading. It is, moreover, for the same reason that it is entirely misleading to refer to the physical world as either a "phenomenal" or a "phenomenological" world, for there is no such thing as autonomous thinking or autonomous subjectivity. Organisms capable of sentience and of thinking are in direct contact with the physical world, in accordance with their different physiological and nerve structures, because all such organisms are derived from the processes of the physical universe. This brings us to the second related fact to which I have referred: what is true on the scale of the individual is equally true on the scale of cosmological and biological evolution. In a sense, each individual capable of subjective experience is, according to its particular manner, a recapitulation in brief of the universal process of evolution.

Of course, these two points are nothing more than bare, skeletal information. They afford no clue as to the mechanisms or processes involved. Our concern is precisely those mechanisms or processes. But we can immediately note that time is the basic framework within which these successive emergences take place. And in fact, the essential theme of the theory which will be formulated in this article is that temporality is not simply a presupposed framework, but is actually constitutive of these emergences. We know that organisms capable of subjective experience are late-comers in the course of evolution, and the science of cosmology has taught us that within the framework of cosmological evolution, they arrived very late

indeed. In other words, once we consider the processes of time having been in operation from the start of the physical universe, we can say that temporality and what it implies long antedate anything we can really call subjective experience. If the theory of "the big bang" has any validity, we can suppose that that high-density and high-temperature explosion of energy constituted, in effect, the beginnings of space, time, and matter. It is therefore these elements which must be held to be the constitutive factors of the early universe. And if we assume, as we surely must, that it is from the reciprocal interactions involving these elements that entities endowed with subjective capacities emerged in the course of evolution, then it is to the operations of these elements that we must look for an explanation of the emergence of organisms endowed with subjective capacities.

Let us now consider the situation from the reverse side, so to speak, from the side of subjective experience itself. We are assuming that the capacity for subjective experience manifested itself in organisms which emerged in the course of evolution. We must therefore suppose that the physical, chemical, and physiological constitution of these organisms is a result of the spatio-temporal process of the initial nuclear explosion. But leaving this question to the particular sciences concerned, the philosophical question which must be raised is that of the emergence of subjective experience itself. Of the three basic factors referred to—space, time, and matter—we can undoubtedly say that time is as fundamentally involved in subjective experience as it is in the physical structure of the organisms in question. But what is not clear is the manner in which time is involved in subjectivity. I shall argue that the emergence of subjectivity is only possible if we suppose the reality of a mode of temporality which is the negation of our abstract conception of pure linear time. A preliminary illustration of this point can be made by reference to sensations. The temporality we ascribe to the processes of the physical universe is an abstraction from a reality which physics holds to be indissolubly spatio-temporal. In other words, the idea of pure linear time is a function of conceptual thinking which is, itself, the manifestation of an organism which emerged in the course of evolution. If we hold that this manifestation "emerged" from a complex evolutionary process, then it is likely that conceptual thinking will only grasp that process progressively and by an accumulation of intelligible fragments. More-

over, apart from conceiving linear time as an aspect of a more complex total process, we are naturally led to realize that conceptual thinking itself cannot be taken for granted: we must suppose it to be a product of some very special operations in the spatio-temporal processes of evolution. An initial clue is provided if we consider the most elementary mode of conscious experience, sensations, for here, we will have to recognize a mode of temporality which is quite other than the temporality we ordinarily ascribe to spatio-temporal processes themselves.

Though it is the case, as we shall see, that sensations themselves relate us directly to the spatio-temporal events of the physical world, sensing as such, sensing as a manifestation of experience, is a purely temporal event which possesses neither spatiality nor materiality. The sensing of the color "red" has no mass and does not have length, breadth, or depth. Nor is it itself, as sensing, of the color "red"; as sensing it possesses no quality other than the fact of its occurrence, that is to say, of its appearance as a temporal event. *What* is sensed is described by using words referring to quantity and quality. *That* there is a sensation is an immediate occurrence, a happening, a temporal event. As an event, it is purely temporal; as an event of a specific kind, it is qualitative. The experience of red and the experience of blue are both, as experiences, purely temporal events; and in that, they are identical. But as kinds of temporal events they are, of course, different. In the spatio-temporal processes of cosmological and biological evolution, the emergence of entities capable of registering qualities in a purely temporal manner is the emergence of something entirely new.

Therefore, if we now consider the spatio-temporal processes from the start of the physical universe and relate these to the appearance of organisms capable of subjective experience, that is to say, organisms which are loci of purely temporal events, we are faced with the essential problem which we must begin trying to solve. And since it is a merely childish and unilluminating picture to imagine chemical processes giving off manifestations as fundamentally different from the physical world as subjective experiences, just as if such manifestations are equivalent to gases, we must leave aside physical analysis and engage in *metaphysical* analysis. Moreover, since the reality of physical evolution means that subjective experience is derivative, then we can also infer that we are finally delivered from the Cartesian framework which has dominated and

falsified the problem of "mind" for over three centuries. But conversely, we are not obliged to follow the impotent reaction of skepticism—itself a conversion of Cartesianism into merely hostile anti-Cartesianism—since we are in possession of an initial sketch of a possible solution which simply undercuts the Cartesian framework. By holding subjectivity as derivative and consequent on specific spatio-temporal operations, we are holding that we cannot make of "mind" or "consciousness" an irreducible element of an ultimate metaphysical framework. Nor does the fact that stating this presupposes "mind" and "consciousness" contradict or deny the point being made. Autobiography is not disqualified by being present speech referring to beginnings which, at the start, had no speech. In point of fact, we must go in search of our own beginnings in the ambiguities of time; that is precisely one of the fundamental functions of that type of "speech act" known as metaphysics. For the thesis which is being proposed here is the inverse of those theories in terms of which temporality is to be attributed to the "constitutive" activity of some mode of transcendental subjectivity, or to the presence of a so-called "Dasein" whose "da" is supposed to be the locus of differentiation between past, present, and future. From the standpoint adopted here, there is no such thing as "transcendental" subjectivity: it is a concept which came to seem philosophically necessary in the course of explicating the consequences of Cartesianism.

The conceptual framework which determines the present approach is derived from the ontological priority of cosmological and biological evolution. In terms of this priority, it is entirely misleading to imagine the reality of an aboriginal subjectivity akin to ours and dubbed a "transcendental" mind, ego, or spirit. Consequently, it is equally misleading to imagine the "constitution" of temporality on the part of this imaginary "transcendental" mind, ego, or spirit. In other words, it is not what we conceive as "mind," "ego," or "spirit" which constitutes time. Quite the contrary: from the present standpoint it is to the operations of an equivocal temporality, a temporality which is entirely beyond our control, that we must attribute the source of the appearance of subjective manifestations. And this, of course, immediately raises the problems regarding the manner in which temporality can give rise to subjective experience in certain living organisms and regarding the several implications of a process of this nature. In general, the problem is not the status of what is experienced. The problem is the emergence,

and therefore the *derivative* status, of experience in a world of spatio-temporal evolution and spatio-temporal processes. And since it is no longer convincing to conceive the problem in terms of the pre-supposed priority of a pre-existent mental, we must perforce look for the solution in terms of the emergence of the mental from the physical. It is the need to take such an emergence seriously which makes it impossible to adopt the kind of solution proposed by Whitehead and Teilhard de Chardin. To postulate any degree of subjectivity or quasi-subjectivity at the level of elementary particles is simply to beg the question. What we have to do is to understand how it is possible for sensations, emotions, and thinking to develop in organisms which are physical and which have gradually emerged from physical, chemical, and biological reactions in the ordinary sense of these words. This means that it is "the physical" which constitutes the primary problem.

If I suppose my dog to be watching the movements of a neighboring cat, and if I consider the situation in terms of the physical processes involved, I will refer to a multiplicity of reactions which together constitute the domain of the physical and biological sciences. But these scientific explanations will not tell me anything about the source and origin of sensations or thinking. I might consider trying to transform this problem by referring to a purely behavioral analysis or by referring to the structures and systems of impersonal processes, as does "cognitive science." But any such reference is itself made by a conscious "I" with its panoply of sensations, emotions, thoughts, and so forth, so that it remains unclear how such reference can possibly constitute a solution to the problem of an experiencing organism. Returning to my dog watching the neighbor's cat, the recognition of the emergence of these animals from physical processes does away with the kind of pseudo-problem raised by a purely "phenomenological" or "hermeneutical" approach, but it clearly raises that very problem of "emergence." I do not have to suppose what I should suppose from a purely phenomenological standpoint: that either my dog does not experience anything at all, or that it engages in the same sort of "phenomenological construction" as that in which I'm said to be engaged. But on the other hand, the recognition of the priority of the physical leaves me with those problems of the emergence of subjectivity which are the concern of the present analysis. It also leaves me with the question of what is implied by the differences in mode of experience which,

from the present standpoint, are assumed to be correlated with different physiological structures and processes.

In any event, whatever the spatio-temporal scene might be "in itself," it is clear that the differentiations of energy-frequencies or signals and the differentiations of organs of reception will give rise to a fragmentation of that real or actual spatio-temporal scene. In point of fact, if we pursue the analysis in terms of the physics and the physiology involved, we shall very soon come to realize that this initial fragmentation in terms of signals and organs of reception for these signals must be pushed much further, and in doing so leads to something like a veritable dissolution. The signals affecting different organs of reception culminate in extremely complex series of chemical reactions in the different organs involved, and in even more complex series of electrical and neurochemical reactions in the nervous system. And what is there in common, we may be tempted to ask, between this complex of physical and physiological reactions and the scene perceived by my dog or by myself? It is perhaps not surprising that anyone should be tempted to remain within the sphere of subjective experience as such. But to do so can only lead to misleading consequences because, in point of fact, we know perfectly well that each one of us has emerged from the growth of a single fertilized egg to which no subjective experience can seriously be attributed. So we are obliged to try to understand how it is that a physical entity can acquire psychical or subjective characteristics.

Let me return to my dog watching the antics of the neighbor's cat. All the processes collectively referred to as the physics, chemistry, and physiology of the situation are spatio-temporal processes, changes which involve matter and which can be isolated and reproduced in the laboratory. But as we have seen, such is not the case for the subjective acts of seeing, hearing, smelling, watching, and the like. It is no doubt possible to reproduce in a laboratory the physical and chemical processes involved in various physiological states. But there is equally little doubt that such experimental syntheses have certainly not been accompanied by the subjective correlates of actual organisms actually sensing, or we would certainly have heard about it. If we consider what seems to be involved, this failure should not be surprising. Actual sensing, as we have seen, has no component of materiality or spatiality. It is a temporal occurrence whose substantiality is qualitative: red, loud, sweet, soft, and so on. The question thus arises of how a complex variety of

spatio-temporal processes can possibly give rise to the purely temporal occurrence of sensing. The clue can only lie in that extraordinary occurrence itself, a temporal event dissociated from materiality and from spatiality.

It would seem that a purely temporal occurrence is something which exists nowhere in nature except, precisely, in experiencing organisms. Therefore, we must infer that experiencing organisms are so structured as to be bodily entities which are also loci of purely temporal events. But we are immediately faced with an apparent paradox, for neither the body nor the brain can serve as an actual locus for something which is neither spatial nor material. Body and brain are spatio-temporal organs which mediate between the spatio-temporal processes of the world and the actions and reactions of the physical organism as a whole. It follows that if it is the case that activities like sensing and thinking are temporal without being spatial or material, then we have no alternative but to postulate a locus appropriate to purely temporal events. But this locus must be intimately associated with the body and the brain, for sensing does not occur independently of sense organs and thinking does not occur independently of the brain. If we are to postulate a locus of temporal occurrences dependent on the mediation of spatio-temporal processes, both of the body and outside the body, that locus will have to be able to function like a slate or writing pad able to register successive messages but also able, unlike slate or pad, to react or respond. The fundamental nature of such a locus would have to be temporal permanence, for only a framework of temporal permanence can constitute an actual, real, concrete locus for purely temporal events. And since we are referring to individual organisms, it would be more accurate to conceive such a locus as a temporal identity, a concept which clearly needs further elucidation.

If our essential framework is the spatio-temporal evolution of the physical universe, and our basic problem that of the emergence of organisms capable of subjective experience, then there is at least a negative reason for holding that the concept "temporal identity" may well be the only possible solution to our basic problem. To posit a separate "substance" defining the subjectivity of a cat, a dog, or a human being would contradict the basic framework of the physical in process. Within this framework, what differentiates these entities are differences in anatomical structures, in physiological processes, and in neurochemical interactions. But none of these

realities can account for the subjectivities involved, which is what has almost invariably led to the postulation of a mysterious other called "mind." But this sudden appearance of "mind" is and remains inexplicable, leading to the philosopher's tendency to treat it as an initial given, and to the scientist's tendency to try to treat it as no different from many other kinds of response or behavior. The position adopted here is that, on the one hand, subjective capacities are not initial givens because they were not possible at the start of the physical universe. On the other hand, the position holds that it is meaningless to suppose that actual sensations, feelings, and acts of thinking and of willing are to be classified as modes of response which are simply more sophisticated than ordinary electro-chemical systems in that they are based on the much more complex electro-chemistry of the nervous system. A sensation is not a more complex chemical reaction; it is something other than a chemical reaction, but something which does not exist independently of chemical reactions. It is the unjustifiable arbitrariness of presuming to transcend immediately the physical which is the reason for the present theory in terms of temporal identity, for it is *from* the physical that we must derive the capacity for subjectivity, and there is nothing in the spatio-temporal process itself which can explain that derivation.

Conversely, however, if we can show that it is possible to explain the emergence of subjectivity in terms of certain operations involving temporality, then that in itself would demonstrate the derivation of the subjective from the physical. But as we shall see, this derivation would not be possible, could not be put into effect, without postulating temporal operations so unique that they cannot be considered "laws of nature" but must rather be seen as elements of a teleological process. For if cosmologists describe the stages of evolution as physical and chemical modifications occurring in the course of abstract linear time in order to make sense of the emergence of organisms endowed with subjective capacities, we as metaphysicians must postulate a progressive process of the internalization of time itself. Such a process cannot be part of the laws of nature, that is to say, the laws of spatio-temporal process. Insofar as we consider what science can tell us of the phase of spatio-temporal process which is prior to the emergence of subjective organisms, the concept of "internalization" is the equivalent of that of the combinations leading to the formation of the successively more and more complex

physical and chemical bodies produced in the course of evolution, and progressively establishing the ordered modes of activity which were later to be summarized as the laws of physics, chemistry, and biology. But with the emergence of organisms capable of subjective experience, we can no longer refer to combinations and to the increasingly complex structures of physical bodies. Neurologists and brain/mind identity theorists repeatedly refer to the extraordinary complexity of the structure and neurochemistry of the brain, as if this can *ipso facto* explain sensory experience. But however complex, physical structure is physical structure, and the idea of complexity simply does not provide the means for explaining the appearance of something so fundamentally different from physical structure or physical process as the pure temporality of the simplest of sensations. For this reason, the materialist's supposition that sensory experience constitutes a sort of gaseous emanation from neurochemical reactions seems to me conceptually incoherent. As the neurologist Hughlings Jackson pointed out a century ago, chemical complexity is not commensurate with sensing. To use Gilbert Ryle's expression, to identify chemical reactions and sensory experience is to be guilty of a "category mistake."

Conversely, unless we are to introduce magically an entirely new substance which would be responsible for sensing, feeling, and thinking, we have no alternative but to derive these capacities from the implications of the evolutionary process itself. And since we know that the sensing of sensations, for instance, constitutes a series of temporal occurrences, once again it seems that we cannot avoid the inference that subjectivity is a matter of the temporal aspect of the spatio-temporal evolutionary process. Having already postulated the necessity of a basic permanence as the only possible framework for the occurrence of purely temporal events, we are naturally led to infer that in the case of certain entities which have reached a certain stage of anatomical and physiological development, there must take place an inversion or an internalization of the time factor in the spatio-temporal process. This internalization of the time factor itself in the case of particular classes of organisms is the establishment of a temporal identity as locus or foundation of the spatio-temporal growth of the individual exemplars of these classes of organisms.

Though I am not here concerned with theological issues, I think it necessary to point out that such a process can have nothing to do

with those hypostatized analogues of human thinking called "transcendental egos" or "absolute selves." We are talking about an evolutionary process which long antedates the appearance of any organism capable of any sort of subjectivity. What we are concerned with is the possibility of inferring some basic conditions for the appearance of such entities. It is therefore entirely incoherent to assume that these conditions can be the hypostatized form of what these conditions produce. Since we cannot find the source of subjective capacities in chemical reactions *per se*, or in the body of laws of the physical sciences, or in such abstract concepts as "process" itself, then we must look for it in the constitutive principles of physical existence itself. It is increasingly recognized that temporality is the most obscure and the most fundamental of these constitutive principles. And if the operations of a fundamentally equivocal temporality can indeed explain the emergence of subjective capacities, then what this ultimately points to is not the quasi-gods whom philosophers have equated with varying interpretations of their own mentalistic powers, but a God who is the master of time and eternity, and therefore of the entire evolutionary process.

We can now turn to sensations once more: how are these to be explained? We were left with signals from an external world and their transformation and dissolution into the complex totality of physiological and neurochemical reactions. But on the other hand, we now have a locus of temporal identity constituting the ontological foundation of the particularity of an organism which develops subjective manifestations. Despite appearances to the contrary, we are in possession of the basic elements for an initial sketch of a possible solution to the problem of sensations, for those basic elements signify that what we must now do is reject one of the most pernicious consequences of the Cartesian framework: the doctrine of primary and secondary qualities. We know that the founders of the new science believed that objective reality consists of nothing but matter in motion, and in Descartes' system this became the assertion that all qualitative aspects of the external world are mere appearances insofar as we attribute these qualities to the external world. From this standpoint, all sensory qualities are held to be not objectively real, but simply properties of the human mind. But from the standpoint which is being argued for here, with the rejection of the Cartesian framework comes the rejection of this unlikely

consequence of Cartesianism. In this world of evolution we know that a vast variety of animals function in terms of smell, sight, and sound. To assume that these animals do not actually "sense" these, but respond mechanically in terms of a pure reflex action of the nervous system consequent on the reception of different energy-frequencies is, itself, entirely arbitrary and an attempt to preserve the essential point of the Cartesian framework. A soundless explosion, a colorless flower are concepts which have no meaning outside the Cartesian framework.

From the standpoint held here, colors and sounds exist in the physical world—for those entities which have the organs and structures to see them and to hear them—and what is needed is an explanation of how such objectively existing qualities can be transposed from the outside world to organisms capable of subjectivity. In view of this assertion of the objectivity of qualities like colors, such an explanation will also have to account for variations in subjective experience, as in color-blindness, for instance. But as regards the basic framework, the combination of the concept of temporal identity with that of the objectivity of qualities gives us the key to the solution of the problem of sensations. It also suggests a theory as to the essential function of the nervous system. In the spatio-temporal world the color "red" is manifested, according to physics, by a certain energy-frequency or wavelength. But the question which concerns us is how the sensation "red" comes to be experienced. If we are justified in supposing that sensory qualities are not creations of "the mind," then we must assume that in some sense a quality like "red" is carried by the frequency with which it is associated. As far as the purely spatio-temporal world is concerned, we are clearly led to infer that the quality "red" does not exist independently of its associated energy-frequency, but we must also infer that "red" is not identical with " x energy-frequency" (associated with "red"). The vocabulary of sensory experience cannot be derived from the vocabulary of physics. We must therefore infer that what is carried to an organism possessed of eyes or their equivalent, and possessed of a nervous system, is an energy-frequency associated with a quality. The chemical composition of the eye or nervous system may not be affected by this particular frequency, in which case the organism will not experience the quality associated with it, for instance, the color red. Or again, one of the "chromatic

mechanisms"⁴ may not be functioning, in which case we are perhaps faced with a case of "color-blindness." But in a general way, if the organism's receptor organs and nervous system are affected by this particular energy-frequency, then we can suppose that the regularity of this signal leads to physical and neurochemical reactions which are equally regular. However, we cannot remain within this purely physicalist framework if we are to account for sensations. We must suppose that the objectively existing qualities are transposed as purely qualitative temporal occurrences requiring a temporal identity as framework for their occurrence. Exactly how such a process occurs is something which would require experimentation rather than speculation. It is perhaps here that an analysis in terms of information-processing may shed some light on the complex processes involved.

What is of philosophical concern here is the inference that neither the mentalist nor the physicalist presuppositions are able to account for sensations, and therefore the inference that we have no alternative but to formulate a new conceptual framework which might at least point the way to the manner in which the problem should be envisaged. We are supposing that colors, sounds, and smells are as real in the physical world as are the mechanical means by which they are manifested. We are also supposing that whether such qualities are actually experienced or not is something which depends on the physiological and neurological structure of this or that organism. Finally, we are supposing as well that insofar as there do exist actual sensations, we must also infer the existence of temporal identities. In terms of these suppositions we can suggest the form of a theory of sensations. If in the spatio-temporal world a quality is not to be dissociated from the mechanisms which manifest it, the fundamental point is that as a sensation a quality is, in fact, dissociated from the spatio-temporal mechanisms which carry it. And this has implications regarding the processes involved.

⁴ A description of these is to be found in G. H. Begbie, *Seeing and the Eye* (New York: Anchor Books, 1973), ch. 6. The contemporary "information processing" framework for analyzing seeing is the subject matter of David Marr, *Vision: A Computational Investigation into the Human Representation and Processing of Visual Information* (San Francisco: W. H. Freeman & Co., 1982). In both cases, color is ascribed not to "mind" but to "color sensitive cells."

Thus, for instance, if qualities are not direct retranslations of spatio-temporal processes but rather accompaniments of such processes, then we must infer that the role of temporality in nature is much more complex than has been supposed by the physical sciences. If we consider "red" to be a quality in nature, the fact that "red" can be experienced as a sensation, and therefore as dissociated from spatiality and physical motion, means that though there seem to be no purely temporal occurrences in nature, nevertheless the potentiality for such occurrences is already implicit in nature long before the appearance of living organisms. As a reality in nature, and considered in itself, a quality as such is a temporal occurrence. To be realized "as such," that is to say, as a purely qualitative temporal occurrence, temporal identities had to come into being. But since we hold a temporal identity to be the result of an operation of the internalization of time itself, the prior existence of qualities as potentially dissociatable temporal occurrences constitutes something like a field within which such an operation becomes plausible.

The implications of this conceptual scheme have to do with an overall schema of the processes involved. Since we are postulating a temporal identity as foundation of the organism capable of sensing, then we can interpret the physical/sensory relationship in the following manner. The signals from the external world are a combination of spatio-temporal motions and of their accompanying qualities. These arouse cells in the specialized receptor organs which are sensitive to the specific frequencies and their accompanying qualities. The physical and neurochemical reactions which carry or subtend these qualities are processed, and in effect absorbed, by the receptor organs and nervous system. At the same time, the qualities accompanying these ceaseless spatio-temporal exchanges must themselves be processed, and in effect reconstructed, according to the specific capacities of the particular organism involved. The constantly reconstructed and transposed qualities manifest themselves "as such" by virtue of the temporal identities constituting the basis of sensing organisms. Within this schema it would seem that the essential function of the nervous system is to allow for the transmission of the qualities of the physical world to the locus of a temporal identity.

This kind of analysis cannot be limited to the qualities of the external world; it must also be applicable to the springs of animal action. Hunger, pain, sexual drive, fear, and so on—these sensations

are as closely associated to physical processes as the seeing of colors or the hearing of sounds. What the qualities of the external world are to their associated spatio-temporal processes, the qualities of these internal sensations are to the physiology of the body. In both cases, it is a temporal identity as basis which allows for the manifestation of these qualities. The following may serve as an illustration. When I have a toothache, it would be quite artificial to suppose that certain chemical changes affect certain nerves and bring about certain neurochemical changes and then retranslate themselves into an entirely and inexplicably different mode called "sensations." What I feel as a pain in my tooth is those chemical and neurochemical changes. I feel them as sensations of pain because I *am* my bodily changes by virtue of myself as spatio-temporal process and because I *am* a locus of temporal identity which registers these physiological changes as sensory occurrences. It is because of these quasi-timeless foundations that the living body is so fundamentally different from the purely spatio-temporal objects of the physical world. It is for the same reason that however closely the anatomy and the chemical composition of a corpse approximates that of a living body, the chemical processes of both cannot function in the same way; the quasi-timeless foundation has vanished from the physical, space-time world, and therefore the physicochemical processes are no longer directed as sensory occurrences to the locus of temporal identity.

If I have lingered on the subject of sensations it is because they constitute the basic elements of subjective life. Their specific nature as this or that type of sensation depends on the physical and chemical functioning of the world and of the body, but their generic nature as a mode of experiencing depends on a foundation of temporal permanence or temporal identity. In other words, consciousness derives from the timeless and is not, as the Cartesian framework implies, an irreducible reality. A sufficient analysis of conceptual thinking would take much longer than this sketch of the basis of sensations. But here it will only be necessary to indicate briefly how conceptualization also derives from the timeless, though not in the sense of Plato's Ideas. Conceptualization is more fundamentally a matter of the timeless than is sensation because it is a consequence of a further operation of temporality. But the essential point for the present analysis is that if concepts derive from the timeless, then we can conclude that timelessness is the fundamental "being"

of concepts. It will therefore be enough to indicate very briefly what is involved in conceptualization before we turn to the concept of being.

For the most part, nonhuman animals adapt almost immediately and spontaneously to the environment in which they are born, and even when they don't, their adaptation is unquestioning. But when the human being emerged, what emerged with him was the loss of this paradise of spontaneous and unquestioning adaptation. What emerged was a creature with the initial makings of a sense of self over against a world which presented itself to him as other, alien, and, no doubt, fearsome. It is no accident that religious mythologies are the first mode of human thinking. To see oneself as descended from gods is a way of appropriating an alien world. But what is of concern here is the operation underlying this new emergence. If the possibility of sensations depends on the internalization of time, establishing a temporal identity as foundation of the sensing organism, then the possibility of a sensing entity which distinguishes itself as other than the world it senses must depend on an operation bringing that temporal identity itself to its own self-manifestation. This can be most clearly seen if we consider sensations themselves. By virtue of their foundation as temporal identities, sensing organisms can identify differing aspects of the sensory physical world. But when a subsequent operation has brought about the self-manifesting of a temporal identity itself, which is what we call "personal identity," then the identification of sensations is experienced as an identification made by the new subjectivity itself. My dog is not aware that it is distinguishing this from that; it simply distinguishes between them. Humans very rapidly do become aware that they are distinguishing between this and that.

Before a year has passed, the human child spontaneously differentiates between itself and its surroundings. In an empirical description of the development of the person, such as the recently popular work of Theodore Lidz, this capacity is simply attributed to a combination of biological inheritance and social formation within the evolutionary context,⁵ which is the usual "nature and

⁵ Theodore Lidz, *The Person: His Development throughout the Life Cycle* (New York: Basic Books, 1968), pp. 5-6 and the many passages regarding the crucial importance of language.

nurture" formula. Lidz uses some psychoanalytic concepts to express his developmental theme, and underlines the basic importance of language.⁶ But of course, the source and origin of language is itself one of the fundamental mysteries in the evolutionary emergence of humanity. Max Delbrück emphasizes that "the origin of language, that unique novelty brought to the world by man, is completely obscure, lacking any traces in the paleontological record."⁷ Apart from the unilluminating view of many contemporary philosophers who simply treat language as an aboriginal "given"—perhaps on the implicit and specious grounds that since language must be used in order to speculate about its origin there is something circular about such speculation—one of the more serious attempts at an analysis of language is represented by Noam Chomsky's return to a modified form of Cartesianism.⁸ The difficulties in Chomsky's "linguistic" form of Cartesianism are similar to those arising from Cartesianism itself. Though the idea of a "deep grammar" is meant to subtend the variety of "surface grammars," it is difficult to see any essential difference between the status of this "deep grammar" and that of "pure thinking." The simple assertion that there clearly must be a relationship between this controlling "deep grammar" and the variety of actual languages does not allow for a clear understanding of the relata involved. In any event, the inference derivable from the position defended here is that what Chomsky is referring to as a "deep grammar" is, in reality, the intelligibility of the physical universe which, as we shall see in a moment, constitutes the basis for human conceptualization.

A metaphysical elucidation raises the question of the conditions for the possibility of what it is that demands explanation. Such a question is itself dependent on the basic framework used in formulating the question. When Kant raised the question of how there could be such a thing as a "synthetic *a priori* judgment" his framework was in terms of a mentalism the priority of which was a dogma derived from the Cartesian revolution. We must follow Kant in raising the same question of the conditions for the possibility of

⁶ Lidz, *The Person*, e.g., pp. 169ff.

⁷ Delbrück, *Mind from Matter?* (Palo Alto, Oxford: Blackwell Scientific Pub., 1986), 272.

⁸ Noam Chomsky, *Cartesian Linguistics* (New York: Harper and Row, 1966); but more particularly, *Language and Mind* (New York: Harcourt Brace Jovanovich, 1972).

conceptual thinking and judgment. But our framework is not in terms of the priority of mentalism; it is in terms of the priority of physical evolution. Within this framework, the equivocality of time is here held to be the key to the explanation of subjective experience. This is so not only for sensations, as I have tried to indicate, but for conceptualization as well. The temporal identity which is the condition *sine qua non* for sensation, according to the present standpoint, is further deployed as a "personal identity," or temporal identity, manifesting itself as such. And it is this which becomes the condition *sine qua non* for conceptual thinking. It is this ontological reality which is personal identity which naturally leads the child to differentiate between himself and the world around him. And it is this differentiation which, from this standpoint, constitutes the basis and foundation of both conceptualization and the later sense of self or self-awareness. This reality of personal identity brings to birth a new type of consciousness which is not limited to acts of identification of the varying qualities of the physical world and to the empirical use of such information, as in the search for food or for a sexual partner. It brings to birth a type of consciousness which identifies by recognizing that similar sensations are similar, and different sensations different. This has the most far-reaching implications for it is, in effect, the implicit recognition of order in the universe. To recognize that red is red and that red differs from green is a different mode of recognition than that which recognizes red and reacts to it one way, while recognizing green and reacting to it in another way. The difference lies in the fact that the former mode of recognition is the implicit recognition of the principle of non-contradiction. And that is a conceptual act.

Such a conceptual act, however, is only possible for a creature which, by nature, has the ability to differentiate between itself and what it experiences, that is to say, which *naturally* makes a distinction which, in effect, establishes the difference between subject and object. All the social, linguistic, and cultural developments which are of such concern today are subsequent to and dependent upon an initial and fundamental distinction between subject and object. The only kind of creature able to make such a distinction is a creature so structured that what it experiences is experienced as being other than itself, and this is only possible if the temporal identity at the root of sensing subjects is a temporal identity manifesting its identity to itself, thereby differentiating between itself

and what it experiences. Such an identity is a "personal identity," and such a subject is a "person." Concepts are therefore acts of identification of a creature of this sort, of "a person"; and the acts themselves are what we refer to as acts of the intellect. We can therefore answer the metaphysical query about the grounds for the possibility of conceptualization by referring to the particular mode of temporal identity which is personal identity. This is part of the answer, the other part being the question of the nature of concepts themselves. If concepts, from the standpoint of subjectivity, depend on personal identity, this does not as yet tell us what they are themselves. The clarification of this point should lead us, in turn, to the problem of being.

I have suggested that the ability to recognize red as red and not green is the implicit ability to recognize order in the universe. To recognize that there is order in the universe is, in effect, to recognize what is potentially intelligible to us of the universe. But we are particular and ephemeral beings, and it is only through this mode of ephemeral particularity that we are able to discern whatever there is of intelligibility for us in this universe. Whether the universe is or is not entirely intelligible is something which is beyond our ken, for we do not possess the universality of comprehension which would be necessary to answer such a question. The mere fact of the eventual death of each one of us gives the lie to any philosophy which pretends to universal comprehension, for comprehension is by the individual, and the death of the individual is the nullification of his comprehension. Conversely, the fact that comprehension is, primarily and originally, *of* the universe and not a mere fabrication of something supposedly autonomous called mind or language, means that there is no justification for proclaiming the "absurdity" of human subjectivity,⁹ or for holding, as does Richard Rorty in several passages of *Philosophy and the Mirror of Nature*, that attempts at philosophical analysis are nothing but expressions of "the conversation of mankind."¹⁰ Such fundamentally egocentric views, derived from Cartesianism and its later vicissitudes, are only possible on the condition of ignoring the salient

⁹ As does Sartre at the end of *L'être et le Néant* (Paris: Gallimard, 1943), p. 708: "l'homme est une passion inutile."

¹⁰ Richard Rorty, *Philosophy and the Mirror of Nature* (Princeton: Princeton University Press, 1979), *passim*.

fact that human subjectivity, like humanity itself, is an emergent of the evolutionary processes of physical reality.

Our particularity and our mortality mean that the universe can only be fragmentarily intelligible to us, but the point is that it is fragmentarily intelligible. That is enough to situate concepts, for in their most essential form concepts are, from this point of view, nothing but fragments of intelligibility, fragments which give us the rules whereby we constantly try to discern more and more details in order to construct more and more comprehensive conceptual schemes. Within this present framework then, concepts are not those absolutes of Platonic theory, but neither are they mere vocal sounds designating empirical experience. Again, concepts are neither the inner essences of particular objects, nor are they to be defined as innate manifestations of God. And yet again, concepts are not at all those supposed direct participations in a supposed transcendental subject made in our own image. In fact, in themselves concepts have no reality at all. They are the provisional tools of a personal identity to whom it has been given to understand something of the universe from which this personal identity has emerged. But conversely, the very manner of our emergence implies that the facts of consciousness and of conceptualization mean more than can actually be expressed by any set of concepts. These facts are themselves the results of temporal operations which are, by nature, something more than can be explained in terms of the space-time processes of the physical universe as such. If the being of concepts is primarily the intelligibility of a physical universe which is only fragmentarily accessible to us—an intelligibility we strive to emulate by annexing its rules and then misleadingly assuming ourselves to be the source of these rules—then the concept of being must refer to the source of a universe which can give rise to an entity able to so understand, however fragmentary his understanding may be. In other words, the concept of being must take into account the implications of those operations which have brought about the very possibility of using concepts.

Initially, being was equated with what was intuited as permanence as opposed to change or becoming, or what Parmenides alluded to as "what is not." This general and obscure insight led to the establishment of a fundamental distinction: being or "what is" came to be identified with intelligibility in the form of absolute Ideas, and the capacity for intellection was assimilated to these Ideas. Ideas

and the intellect came to be regarded as the realities of permanence, and the physical world as the flux of impermanence. In varying modes, this priority of intellect, intelligibility, or mind seemed to become the very hallmark of metaphysical thinking. But if the discovery of cosmological and biological evolution is to be taken seriously, then the distinction established and developed by the several modes of Platonism cannot be maintained. If it is the case that humans and their capacity to partially understand are a result of temporal operations which transcend our understanding because they are themselves the foundation of that understanding, then it is not possible to equate being either with intelligibility or with intellect. Conversely, if we propose defining being in terms of the spatio-temporal processes of the universe, including the emergence of all entities which are presently integral parts of this universe, then we must acknowledge that the concept of being is redundant, for then all of reality is nothing but the sum of these spatio-temporal processes together with the epiphenomena they have somehow produced. And on such a basis, of course, the real problems belong to the domain of the physical sciences. Then indeed philosophy can be no more than the arbitrary story-tellings of this or that individual, contributions to the general "conversation of mankind."

It will be noticed that in this last case the physical universe is simply taken for granted, left to the analyses of the physical sciences. Is it any wonder that scientists are increasingly going beyond the limits of their own methods and engaging in metascientific speculations as a substitute for metaphysics? Again, today it is all too evident that what used to be the problems of "the soul" and of "conceptual thinking" have tended increasingly to become questions of behavior and of the use, structure, and inventive capacities of a language which is simply there. Rejecting questions of ultimate source, origin, or "foundations" is simply another way of redefining philosophy as the study of surface behaviors. In that sense, philosophical skepticism functions as a self-fulfilling prophecy for those who engage in it and for those who adhere to it. For those who, on the contrary, believe that current fashions cannot do away with the problems which are inherent in the obscurities of the human situation, it is essentially a matter of continuing in the tradition of trying to find the valid manner of conceiving these obscurities and of attempting to shed some light on them. It is only in the intellectual conflicts of this area that the ultimately interesting questions

reside. It is to this domain that Plato was referring when he made Socrates say that the unexamined life is not worth living. What the authentic skeptic is saying—and apart from spurious literary prose there are, in fact, relatively few of these—is that on examination the world and the human being are ultimately meaningless occurrences. But it is in this very situation that a questionable paradox arises, for it is the particular human being who alone raises the questions of meaning and of sense, and how is it possible for such a naturalistic animal to have come to raise any questions at all. But the skeptic simply avoids the problem by proclaiming that there is no problem. And so we shall leave him there and proceed to our own conclusions.

An ultimately senseless universe which is also partially intelligible is very close to being a contradictory position, for we are ascribing both sense and senselessness to one and the same thing. But as indicated earlier, there is an element of truth in this paradoxical position. It is this element of truth which, from the present standpoint, must lead us back to a concept of being which is not unknown to the history of philosophy. The element of truth to which I'm referring is the fact that it is perfectly true that the universe is not completely intelligible to us. But it is precisely the paradox of an apparently ultimately senseless existing universe giving rise to entities capable of understanding something of its nature and processes which should persuade us to rethink the concept of being and reconsider a view which has been virtually proscribed in contemporary philosophy. If the preceding analyses have any validity, then the paradox itself is without foundation. For the paradox lies in the juxtaposition of the idea of a spatio-temporal universe which we treat as an ultimate given, and a process of understanding which we either unquestioningly treat as autonomous or assume to be wholly derived from the spatio-temporal process itself. None of these presuppositions are compatible with the conceptual analyses formulated above. They are, in fact, just one more expression of that deeply ingrained Cartesianism which, at a certain level, seems to accord so well with common sense, but which in fact does not accord with common sense at the level of a body/mind interactionism which common sense also holds to be true. To account for the possibility of a real relationship between the physical body and what we call mind or, more generally, subjectivity, it has been necessary to postulate internalizing temporal operations which

cannot be the effect of space-time processes themselves. If these operations *are* the source of subjective experience and of conceptualization, then they are also, of course, the source of the questions we raise regarding the ultimate sense or senselessness of the existence of the universe and of ourselves. And since there is no possibility of attributing such operations to the laws of science as presently known, we are led to the necessity of postulating a long-term immanent action of temporality which has something to do with the ancient insight regarding teleology.

Such a concept is, of course, a direct denial both of skepticism and of any assertion of ultimate meaninglessness. Teleology necessarily points to something beyond the space-time world as such. It also points to something beyond the conception of an entirely immanent principle, deriving whatever explanatory powers it has from the postulation of a transcendental subjectivity immanently wedded to the spatio-temporal processes of the physical universe. Such an immanent principle can only mean ultimate senselessness for mortal man, because mortal man is a particular whereas a transcendental subject is a universal. How could it be otherwise, since in fact transcendental subjectivity is nothing else but the projection of a general idea derived from individual instances of actual thinking or, in general, of actual subjectivity? But if it is the case that subjectivity, in all its modes, derives from the immanent operations of temporal internalization establishing temporal identities and the subsequent self-manifesting of these as "personal identities," then it is also the case that these immanent operations are not self-explanatory. They require a ground and explanation which lies outside both the space-time world with its laws and the teleological operations of the gradual internalization of time itself. In other words, the entire process, giving rise to particular entities capable of raising the question of ultimate meaning, cannot stop short of requiring an entirely transcendent, and not a merely transcendental, ground as explanation. No universal law can satisfy the complex, varied, and multiple meaning-requirements of particular individuals, and yet meaning-requirements arise nowhere but in particular individuals. All of this points to the necessity of postulating another mode or level of reality or existence, a level at which the concept of "being" would acquire an appropriate use.

The conceptual scheme sketched out in the preceding pages denies that subjectivity, and in particular human understanding,

can be regarded as either autonomous or as an emanation of space-time reactions. The emergence of subjectivity requires successive operations of the internalization of time. But this, in turn, means that the space-time reality of the physical universe cannot be conceived as simply given, because there is nothing in a 'space-time process itself which can account for such operations. On all these counts, the apparent paradox of juxtaposing a spatio-temporal universe as given with an understanding as autonomous or as directly derived from physical reality is a paradox without foundation. The spatio-temporal universe must itself have an ultimate foundation, and it is that foundation which can alone constitute the source of the successive internalizations of time. Being in this manner the source of subjectivity itself, it would be nonsensical to imagine this source as itself constituting a mode of subjectivity, either in the form of an "absolute mind" or of a "transcendental subject." The source of mind must precede mind.

It is clear that the entire argument points to the metaphysical necessity of using the word "being" to refer to this ultimate ground of all the forms of existence which are directly accessible to us, either through sensory experience or by means of conceptual thinking. We have appropriated the word "God" just as if we know what it means. But we do *not* know what it means, and there is no such thing as the various modes of Whitehead's "god in the making." There was some point to the ancient Hebrew tendency to avoid the use of the name of God. It is for the same reason that in metaphysics the only appropriate word for the ultimate ground of the universe is the word "being." To say that God is being is to say something which we cannot fully understand, because it is also an inverse way of saying that whatever we do understand is passing and ephemeral. The spatio-temporal universe, ideas, intelligibility, even the loci of temporal permanence, are passing and ephemeral, and cannot be identified with an ultimate ground or reality for which we use the word "being." Even if there is such a thing as immortality, it is not by virtue of any individual temporal identity in itself that such a state can exist. It would only be by virtue of the grounding of such temporal identities in being itself. But we can perhaps point to one characteristic of being itself: the operations of the internalization of time would not be possible unless being were eternal.

ON THE IMPOSSIBILITY OF ARTIFICIAL INTELLIGENCE*

PAUL WEISS

IS THERE A WARRANT FOR SAYING that computers, or other machines, are intelligent? Will there ever be a time when it will be proper to say that they think? Both questions can be reasonably answered affirmatively, unless there is something amiss in saying that a sundial or a watch tells time, corporations are quasi-persons, floods threaten lives and bodies, or that computers are property.

When we think in this vein, we in effect bring that about which we speak into a humanized world, a world in which it continues to be and function as it had before but, in addition, is characterized as having traits and activities beyond the powers of inanimate beings. No one today is bothered by such expressions as a bitter wind, a dangerous terrain, or a hot day. Men seem to have spoken in this vein apparently since the beginning of recorded time. The characterizations may be said to be metaphorical, but to have become stale with use. There may well come a time when it will be just as unnoteworthy to remark that a computer is intelligent.

If the discussion regarding the possibility of artificial intelligence were nothing more than a dispute about the ways in which language is or might be used, it would not be very interesting, since it would refer to nothing more than the way the word "intelligence" might be commonly employed. If, instead, we are interested in knowing whether or not computers actually think, or clocks really tell time, and mean that they have the kind of consciousness, inferential powers, imagination, sensitivity, responsibility, memory, and expectations that humans have, we must turn away from linguistic usage to ask instead whether it will ever be possible for machines, no matter how quick and adroit, to be conscious, to infer, imagine, be responsible, and so forth.

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A computer is a machine. Like other machines, it is made up of a number of gross physical bodies, joined in such a way that they continue to be distinct from one another. Each of those bodies encompasses a multiplicity of smaller units, all subject to cosmic conditions and laws. When we speak of a machine as being nothing more than a multitude of such units, we take it to be functioning in accord with those cosmic laws. They do this when they fall. If we view them as being composed of a number of parts that we have managed to yoke together, they will instead be taken to be complex cosmic units, together with other complexes.

Although there are some who allow for the existence of nothing other than units within a cosmic space-time, the nature of experiments, the ability to attend, the deliberate use of instruments, and even the determination of where one is to attend to the ultimate units or their effects, makes evident that those thinkers, like the rest of us, do and must acknowledge something more. Even the existence of water stands in their way. It flows, is frozen, or condenses, and so far is distinct for H_2O . Where this formula refers to molecules, "water" refers to a gross, palpable mass having marked appearances and distinctive ways of functioning. Water does not come into existence or pass away with the coming to be and passing away of man. It was present before men existed; it then acted in distinctive ways, limited but not controlled by the units within it. It is not identifiable with any machine, even one made of ice and able to produce Boolean results at great speed.

Existing before there were men or any other living beings, water is more than an aggregate of unit entities. If it is located in the cosmos, it will be as a complex encompassing such units, each with its own nature and way of functioning. It and stars, mountains, and clouds make evident that there is more to reality than irreducible units or aggregations of them. Those units are encompassed by, are locateable in, and have their positions affected by the adventures undergone by the complex singulars in which they are. To find such units in the sun, we must learn where the sun is and keep abreast of its movement. If the sun be denied reality, or if it be treated as a kind of blurred reference to the units within it, remarks about it would at best be summary ways of referring to those units. We would then have to say that references to stars, mountains, water, and even to chemical elements, are just quick means for referring to a plurality of units that no one ever encountered. These com-

plexes belong to a complex cosmos, having its own distinctive kinds of entities, distances, and laws.

The cosmos does not depend for its existence or functioning on man. Without humans, of course, it would not be known, but their minds do not produce what makes what is claimed be true. If knowledge could do this, it would have to produce the very beings who know as well as the very earth they stand on. A man would remain suspended until he could create a place that he could then verbally deny existed.

The denial that there are any complexes not only eliminates the earth and the heavens but precludes actual experiences, the use of instruments, the application of theories, the men who might entertain these, machines, and, of course, computers as well. The fact is not denied but only complicated when one remarks that what men affirm may not report exactly what occurs. It makes no difference that the denial is confined within a language, for not only does this embrace complexes of its own, within which irreducible units are contained, but they are offered by and to humans.

Were humans no longer to exist, they might well leave machines, and thus computers, behind. These would still continue to be made up of complex objects within which there were simple cosmic entities. So far as it is allowed that men can be self-conscious, responsible, and afraid, that they can infer, believe, and speculate, one will allow that they do what the complexes cannot. Humans exist in a realm of their own all the while that their bodies continue to be together with other complex cosmic units and the bodies of other natural beings.

Trees, insects, animals, and humans as well, are all complex beings. They are natural realities existing in a distinctive, historically determined world where what had occurred makes a difference to the nature and import of what is alongside as well as to what comes later. Nature cannot be reduced to the cosmos without losing its characteristic rhythms, temporality, associations, and members.

The quaint, unverifiable theory of a big bang, with its supposed beginning of time and perhaps space, seems to allow for no affecting of its occurrence by the past, provides for no account of customs, natural selection, or a future giving a new import to whatever had preceded it. We could, of course, speak of a history of the cosmos, but that history would be different from one pertinent to natural beings. While the cosmos contains groups of units of various kinds

and magnitudes, nature contains complex, affiliated singulars in situations affected by the past and the incipient future. When, then, evolutionary theory is used in geology, one must avoid speaking as though it occurred in the very same kind of time and space that characterizes the world of the living. Some of these live in communities with natures, rhythms, and histories, not reducible to any other.

Just as there are those who take all cosmic beings to be just aggregates of simples, so there are those who take all natural and even living beings to be just cosmic complexes. To do this, though, they have to ignore the ways the living function together. Nothing, however, is gained if one follows the lead of the emergent evolutionists and treats the living as though it existed in a realm above the cosmic. Living beings are where their contained cosmic entities are, but exist in a different way, in a space and time having its own distinctive distances. Men, in addition, because they have a history no others live through, must so far be distinguishable from all natural beings while continuing to be together with them, and so far also be subject to the conditions that govern them. Entirely different from all other beings, they nevertheless also exist in the same geological epoch with natural objects and other complex entities.

Computers are complex entities. Since they are the products of human invention, they are also encompassed within human history. We accept that history when we say that there might well come a time when computers will be credited with features now thought to be uniquely human. Within the compass of that human history, not only do economies, politics, art, and wars find a place, but they there dictate some of the roles that computers have.

To remark that we are now living in a "machine age" is but to say that machines are playing a role in our history. Although that history is the history of humans, it inescapably encompasses whatever they acknowledge or use. Human history pulls into it whatever concerns man, and therefore whatever man might make. Computers do not thereupon lose their status as machines or their place in the cosmos.

We rightly speak of computers as property and treat them as partners in games. They are these just so far as they interest humans. As part of the human realm, they are subject to human assessments, to economics, and conceivably to politics, not because of anything they do, but because and so far as the concerns of men

reach them in somewhat the way in which individuals are caught up in the affairs of societies, states, and nations. What is then done is no different in principle from what we daily do when we take the sun to rise in the East and set in the West, take it to be pale yellow or flaming red, or to be a source of warmth and daylight. It is also what is done when gold is taken to be a measure of economic value, or when a day is divided into twenty-four hours.

The so-called problem of artificial intelligence does not arise in an acute form until one moves from the consideration of a humanized, historical world, in which nonhuman objects also have a place, to the human realm occupied only by humans, exercising powers no other beings have. The intelligence these exhibit is not separable from a consciousness, memory, hopes, fears, sensibility, desire, accountability, and other private powers, all interinvolved with a distinctive character and individuality.

Computers cannot be intelligent even in the way subhuman living beings are, since these too have privacies in which intelligence is intertwined with other powers, and both affect and are affected by their bodies. To put the matter cautiously: chess-playing computers are not only not more intelligent than awkward amateur chess players, they are not intelligent even in the way in which subhuman living beings are, since these, like humans, have an intelligence which is interinvolved with such other powers as sensitivity and expectation. If a computer could be more intelligent than an ant or a bee, it should also be said that it might be more intelligent than any man, just so far as it was able to produce results not possible to any human.

Computers can duplicate many of the things men do. They can keep better and more accurate records, produce multiple replicas, and keep on working without stopping, as long as their parts hold out and energy is supplied. Physically viewed, they are stronger and in some respects more dexterous than any human is. If rapidity and accuracy were our only criteria for the determination of the presence of intelligence, we would today have to place computers not only above the primates but above all humans. We do not do so, because we know that they are never more than machines, without common traditions, political duties, inalienateable rights, or an inner life. They do not dream, believe, or hope. Nor can they think, for they cannot form concepts. They are unable to do any mathematical work, since they deal only with numerals and have no way

of attending to numbers. They may repeat, but they do not remember; they may follow one move with another and come to rest at a prescribed terminus, but they cannot infer, any more than they can dream, plan, or believe.

A computer has no privacy, though many of its parts are hidden. It is not able to feel pain or pleasure; it has no feelings or emotions. There is nothing that it knows. Though it does arrive at outcomes that intelligence endorses, it is not intelligent, for it is not alive. Artificial intelligence, in short, is not intelligence at all, any more than an artificial rose, even if well perfumed and able to deceive, is a rose.

As we saw earlier, we can and do speak of a computer as though it could add, search, produce a message, and the like. When we do, we merely credit to another, more complex machine the kind of characterization we impose upon a set of gears hidden by material on which we have put twelve numerals to enable us to tell the time. One of these days we may, in a similar way, speak of computers as being not just artificially intelligent but simply intelligent, just as we now speak of them as having not artificial but just plain bugs, worms, and viruses. Intelligence is possible only to some of the living and then only some of the time. It is not to be credited to a machine unless it be proper to speak of anything that can be read as providing an acceptable answer to a problem or question as having replied to the problem or question. A parrot can say " $7 + 5 = 12$," but that does not mean that it knows how to add.

Taken by itself, a computer remains just an aggregate of parts well put together, knowing nothing, unable to decide, to infer, or to act. There never will be a time when it can escape these limitations, unless it could become alive, reflective, expectative, able to fear, hope, and reason. It will then no longer be just a computer but a living being with a privacy of its own.

It is possible to mimic humans, copy their ways, and duplicate what they produce. But one does not duplicate what they are or the powers they have by duplicating what they might do and achieve. No matter how clever a copyist is, he falls short of being a creator. Were a human just a simple cosmic being, or a number of these joined together, he would not be alive, able to claim that a computer was intelligent. He may, though, make such a claim when he takes a computer to be part of his humanized world. Once this truth is recognized, there is nothing more to do but await a time when "in-

telligence" and particularly "intelligent machines" have become stale metaphors, hardly worth thinking about. All the while, it will be eminently desirable to increase the range and speed of the machines, and take them to be part of the humanized world to whatever degree we find it convenient or congenial to do so.

We can imitate, but we cannot manufacture, beings that are intelligent, since this would require our producing living beings. We cannot produce beings which are intelligent in the way humans are, without our producing beings having sensitivity, sensibility, rights, intentions, traditions, and imagination. We can place what we make alongside our clocks, thermostats, and thermometers and, like a child with its doll, credit them with human powers. There is no harm in doing this, but there also will be no gain in understanding what the object does. Why then are so many so deeply concerned about the issue? Is it not that they take humans to be just bodies, that they suppose that humans privately do nothing more than calculate, and that those privacies are caused by or eventually will be duplicated by bodies? But a privacy is more than a mind, a mind is other than a brain, and a brain is more than a congerie of cosmic units.

We have all heard about altruistic genes, of the wisdom of the body, as well as the right and left side of the brain dictating rational and intuitional activities and outcomes. These are the result of reading back, into subordinate parts, features dependent on the nature and activity of single, undivided human beings. Defenders of the idea of artificial intelligence reverse that procedure by first misconstruing the nature of intelligence and then exciting themselves about the uninteresting humanization of one of their tools. Behind it all perhaps is the tacit supposition that life can be produced in the laboratory and that speed, flexibility, and accuracy are all that is needed to warrant the claim that a machine is intelligent.

These are issues that need discussion by artificial intelligence advocates. Until then references to it will remain little more than attempts to deal with what is not well-defined—intelligence—by presupposing actions by what has not been well understood—human beings.

LEVELS OF KNOWLEDGE IN THE *THEAETETUS*

KENNETH DORTER

I WOULD LIKE TO PUT FORWARD the suggestion that the *Theaetetus* is a progressive development of the concept of knowledge. To this end, instead of focusing on one or two particular passages, I shall go through the dialogue as a whole in terms of what it has to say about the problem of knowledge. I hope that what is gained in a synoptic view of the dialogue will compensate for comparatively brief time spent on each passage.

I

At 145e Socrates asks Theaetetus whether knowledge and wisdom are the same thing. Theaetetus answers in the affirmative and there matters are allowed to rest.¹ Coming after *Republic* 4's analysis of wisdom as knowledge *together with self-mastery* (the subordination of appetite and competitiveness to reason), this easy identification of wisdom with knowledge is provocative and leads one to wonder whether the aporetic ending of the dialogue is in any way connected with this oversimplified beginning. Plato's readers would hardly have forgotten the doctrine of the tripartite soul so quickly, and there seems to be a deliberate reminder of it in that the names of the initial speakers in the dialogue, Eucleides ("renown") and Terpsion ("delight"), correspond to the two lower motivations of the soul, "love of honor" and "love of pleasure." Later, in the long central digression that recalls the *Republic*² and *Phaedo*, where So-

¹ Socrates' reply is noncommittal: "Now it is this very thing that perplexes me, and I am not sufficiently capable of grasping by myself what knowledge is." (Translations are my own except where noted.)

² Perhaps the opening of the *Theaetetus* is meant to recall the opening words of the *Republic* (and the image of the Cave). Joan Harrison notes that "Eucleides . . . was 'going down' (*katabainôn*) to the harbor when he

crates speaks not as a midwife but from his own conviction, he says that we must seek to escape the evils of the corporeal world, and that "to escape means assimilation to a god, and assimilation means to become just and pious, with wisdom" (176b). The word used is *phronēsis*, not *sophia* as in the earlier passage and in the *Republic*, but the point is the same, that the highest rational attainment goes beyond intellectual knowledge and involves the subordination of "corporeal evils" to the "divine." Accordingly, Socrates goes on to say that "knowledge of this [the god] is true wisdom [*sophia*] and virtue" (176c). There are more direct reminders of the *Republic* doctrine.

Before Socrates meets Theaetetus, Theodorus describes him as being quick to learn, gentle, and courageous, and remarks that this is a combination which otherwise

I would not have supposed to exist, nor do I see it. Rather, those who are as sharp as he is, and quick and with retentive memories, are also for the most part quick tempered, . . . manic rather than courageous. Those on the other hand who are more sedate are also somewhat sluggish when they come up against their studies, and are forgetful. (144a-b)

We can restate this passage, which recalls the qualities sought for in the guardian class of the *Republic*,³ in terms of the categories of that dialogue. Intelligent people are almost always dominated by their spirited nature, and those who are not spirited tend to be lazy or sluggish (*νωθροί*), more interested in comfort than in effort. Most people are thus dominated by love of honor or love of pleasure, and it is only Theaetetus' nature that makes Theodorus realize that it is possible to be intellectual without being dominated by spiritedness. That is, he realizes that love of reason is distinct from love of honor, and that there are three types of persons rather than two.

The lazy, forgetful type was exemplified by the two characters with whom the dialogue opens.⁴ When Terpsion asks Eucleides if he can repeat the conversation that Theaetetus had with Socrates,

'happened to meet' Theaetetus being carried from . . . Corinth" ("Plato's Prologue: *Theaetetus* 142a-143c," *Tulane Studies in Philosophy* 27 [1978]: 103-23; p. 116).

³ Book 2, 375b-376c.

⁴ The excessively spirited type is mentioned only indirectly, in Socrates' reference to the irrationally angry response of people whose views he has shown to be false (151c-d).

he replies, "No, by Zeus! Not by heart" (142e). But Socrates had recited it for him verbatim and refreshed his memory every time Eucleides went to Athens, until by now Eucleides has almost all of it written down (143a). Not only is Eucleides' memory not impressive, but he has gone about this task in a lazy, piecemeal fashion. Terpsion's memory or energy is unreliable also, for he had "always intended" to ask Eucleides to read it, but has not actually done so until now—whether out of forgetfulness or procrastination he does not say. He wants to hear it now, however, because he is tired and needs to rest (143a). Eucleides, too, is tired and would like a rest, so he decides to have his slave read the conversation to them while they rest (143b). He also mentions that he put the conversation in the form of direct discourse rather than narrative because it would be too much trouble (*παρέχοιεν πράγματα*) to put in Socrates' narrative asides, such as "And I said," between all the speeches (143c).

This combination of poor memory and lazy lack of spirit becomes immediately evident *within* the conversation in the person of Theodorus, who cannot remember who Theaetetus' father is (although Socrates, who has never met Theaetetus, knows his father and native city as soon as he sees him), and who fearfully resists every attempt to draw him into the discussion.⁵

The significance of memory, which Plato foreshadows by these dramaturgic means, will emerge in due course; but some preliminary remarks may be made about that of courage (which is here opposed both to laziness and fearfulness). Throughout the ensuing discussion the need for courage and boldness is continually emphasized.⁶ A clue to the reason for this may lie in a passage of the *Meno*, a dialogue which the *Theaetetus* recalls at almost every turn.⁷ There,

⁵ 146b, 162a-b, 165a-b, 169a-b, 177c, 183c-d.

⁶ E.g., 148d, 151d, 151d-e, 157d, 166a-b, 177d, 187b. Cf. 153b. See also *Sophist* 261b. "Courage" in this sense, however, does not necessarily imply all the attributes ascribed to it as one of the cardinal virtues in *Republic* 4 (442c).

⁷ For example: 1) At 146c-d Theaetetus is rebuked for giving a list of examples in answer to the question "What is knowledge?" as Meno had been for "What is virtue?" (72a). 2) At 148c Socrates offers a definitional example of clay as earth mixed with water, as he had offered Meno the example of shape defined as that which always accompanies color (75b). 3) The *Meno* took as its model the knowledge that the square root of an area of eight is not expressible as a whole number but may be expressed as a diagonal (82b-85b); the *Theaetetus* proceeds to take as an example of knowledge the distinction between areas whose roots are expressible as

after introducing the doctrine of recollection, Socrates concludes that this refutes Meno's paradox by showing that learning is possible

if one is *courageous* and does not desist from seeking; for seeking and learning is the whole of recollection. One must not be convinced by that contentious doctrine [Meno's paradox]; that doctrine will make us *lazy* and is pleasant for soft people to hear. This one, however, makes people energetic and searching. (81d, emphasis added)

Whether or not the *Theaetetus* has recollection in its background, it reaffirms the *Meno's* claim that, whatever theoretical knowledge may be, it is not something easily acquired. It requires the courage to persist amid difficulties and frustrations, and the boldness to pursue hypotheses that may fly in the face of common sense. According to the digression in the middle of the dialogue, what is called for ultimately is nothing less than the courage to change one's way of life. This is not the kind of knowledge which *Theaetetus* will take as his model, however.

whole numbers (squares) and those which are not (oblongs) (147d-148b). 4) Socrates' remark that people think he is only a strange person who reduces others to an impasse (149a) precisely echoes Meno's complaint at 79e-80b. 5) The *Theaetetus* (187b ff.), like the *Meno* (97a ff.), discusses knowledge by comparison with true opinion. 6) The *Theaetetus* more than once (198c-d; cf. 196d-e, 209e) alludes to Meno's paradox (80d). 7) The *Meno* ends with Socrates saying, "Convince your friend Anytus [who had warned Socrates at 94e that he may find himself in serious trouble for critical remarks he had just made] of these things of which you are now convinced, so that he may become more calm. If you convince him you will also benefit the Athenians"; the *Theaetetus* ends with Socrates going off to answer the indictment of Meletus, of which Anytus was co-author. As an eighth parallel one may add W.G. Runciman's observation that the conclusion of the *Theaetetus* is only apparently aporetic, like that of the *Meno* (*Plato's Later Epistemology* [Cambridge: Cambridge University Press, 1962], 7). Regarding example 3, Malcolm Brown remarks, "Already in antiquity this point of parallelism was made by the anonymous commentator on *Theaetetus* (eds. H. Diels and W. Schubart, *Berliner Klassikertexte* ii, 1905): 'the [side of the] two-foot square is also incommensurable . . . but he left it out, they say, because it is in the *Meno*'" (*Theaetetus: Knowledge as Continued Learning*, *Journal of the History of Philosophy* 7, no. 4 [October 1969]: 360, n. 4).

A further suggestion by F. M. Cornford, who notes several of the above as well, is that Socrates' midwifery corresponds to the *Meno's* doctrine of recollection (*Plato's Theory of Knowledge* [London: Routledge & Kegan Paul, 1935], 27-8). This is often rejected on the grounds that the answers elicited by midwifery are frequently wrong (e.g., John McDowell, *Plato, Theaetetus* [Oxford: Clarendon Press, 1973], 117); however, the same is true of the answers elicited by Socrates from Meno's slave (82e, 83e).

II

That Plato should assign to a mathematician the role of defining knowledge as sense-perception (151e) is not surprising when one considers that for the Greeks, mathematics centered on geometry, the proofs of which were illustrated by diagrams. The *Meno*, however, reminded us that what one learns *only* by looking at the diagrams is not knowledge at all. Socrates says there about the slave:

At present these opinions, having just been stirred up in him, are like a dream. If, however, one were to ask him the same things many times and in many ways, you know that finally he would have knowledge of them that is no less accurate than anyone's. (85c-d)

In the *Theaetetus* Socrates pursues the opposite path. Rather than ascertaining whether Theaetetus might have mathematics in mind as the model of knowledge (as is so often the case in Plato), and then pushing him further in the direction of the intelligible, Socrates instead pushes him in the contrary direction, to the most phenomenalistic way of conceiving knowledge. The world is just as it seems to each observer. Plato begins the dialogue with the most elementary conception of knowledge, the lowest grade of information, mere sense experience. From this he will generate under the pressure of criticism progressively more complete models in accordance with the method of hypothesis.⁸

1. This first position, which is now to be attacked, is assimilated to Protagoras' doctrine that "Man is the measure of all things," a doctrine that Socrates interprets as the nonfalsifiability of sense impressions. Socrates' first refutation is that Protagoras might as well have said not that the measure of all things is man, but pig or baboon. Then he could laugh at us for thinking him as wise as a god when in fact he is no wiser than a tadpole. In that case there would be no sense in paying to be his student, or in the practice of Socratic midwifery, or dialectic, since truth is already to be found in mere perception (161c-e). Neither Theodorus nor Theaetetus

⁸ For this interpretation of the method of hypothesis, see Dorter, *Plato's Phaedo: An Interpretation* (Toronto: University of Toronto Press, 1982), 127-38. Kenneth Sayre points out that "the *Theaetetus* unquestionably is Plato's most ambitious and sustained attempt to apply the method of hypothesis in matters of philosophic argumentation" (*Plato's Analytic Method* [Chicago: University of Chicago Press, 1969], 232).

can find anything wrong with this refutation, but Socrates points out that it is an example of demagoguery (162d), and that Protagoras would accuse them of accepting appeals to mere likelihood (162e). We are not to be deterred by the *seeming* absurdity of saying that a pig or baboon is the measure of all things. On the basis of the foregoing theory of perception, which asserted that the object of perception is always relative to the perceiver, it is plausible and even necessary to conclude that pigs and baboons are the measures of all things (that is, all that they perceive).

But a residue of Socrates' objection survives this reply. His second point still stands. On Protagoras' account it makes no sense to consider one person to be wiser than another or for one person to presume to teach or criticize another. In fact, Protagoras charged for teaching, and Socrates' midwifery and dialectics were considered valuable by his students. Nevertheless this point does not invalidate Protagoras' claims because it is really talking about a different level of knowledge. It speaks of conceptual or interpretive knowledge rather than perceptual information. Accordingly, although this first argument seems at first inconsequential, on closer inspection it implies a distinction between two levels of knowledge, a distinction that will turn out to be important.

2. The next objection makes this distinction more explicit. What about hearing a foreign language, Socrates asks, or even seeing written words in our own language when we cannot read? How can it be maintained that perception is knowledge when we perceive these sounds and symbols but do not understand them? Theaetetus replies that

we know about them just that which we see and hear. In the one case we both see and know the shape and color, and in the other case we hear and at the same time know the higher and lower sounds. However, those things which the literate person and the interpreter teach about them are neither perceived by sight or hearing, nor known. (163b-c)

Socrates praises this answer but adds, "I had better not disagree with you about this, so that you will grow." Coming after the last objection the basis for such a disagreement is not hard to discern. Once again the two levels of knowledge are visible, sensory information and interpretation thereof, but here the latter is made evident. At the first level everyone's knowledge is coextensive with

the information supplied by their senses, and none is any better than any other. But at the second level it is undeniable that some people (the literate) know the *meaning* of these phenomena better than other people, and this second kind of knowledge is not coextensive with sense perception. Once again a portion of Socrates' objection remains untouched by the reply. There is an interpretive as well as a sensory kind of knowledge, and the former is not reducible to the latter.

3. The implications of the next objection point in the same direction, but with sharper focus still. On the hypothesis that knowledge is perception, if we see something we must know it. But if we close our eyes, then, even if we still remember the object, we must be said no longer to know it. This would be a "monstrous" conclusion (163c-164b).

No reply is made to this objection, but Socrates remarks that their conclusion was derived from a contentious rather than a philosophical style of argument (164c) and that if Protagoras were here he would have much to say in reply (164e). The fallacy of the argument may be expressed as a collapsing of the distinction between memory *of* knowledge and memory *as* knowledge. I can look at a book and say that I perceive and therefore know that a book is on my desk. I can then close my eyes and say that I remember perceiving and knowing that a book was on my desk. But it does not follow that I still know that there is a book on my desk. There is no contradiction or monstrous conclusion. Nevertheless memory is a kind of knowledge, although of a different order than perception. And as Aristotle mentions at the beginning of the *Metaphysics* (1.1.980b28), a plurality of memories constitutes experience, which is an important kind of knowing different from sense perception. Memory is in fact a necessary condition for interpretive knowledge, and the implications of this example therefore clarify the distinction between perceptual and interpretive knowledge adumbrated in the first two objections.

4. The final objection in this series, introduced indeed as "the most formidable," is that if we look at something with one eye closed, then we both see and do not see, and accordingly both know and do not know the object. This is said to reduce Theaetetus' hypothesis, that perceiving is knowing, to absurdity (165b-d). Theaetetus is clearly not persuaded by this line of argument, but lacks the weapons with which to fight it. With some encouragement he might have

hit upon the distinctions made in the definition of contradiction in the *Republic*,⁹ but Socrates gives him the opposite of encouragement.

What is the point of this "most formidable," most transparently fallacious argument? Might the two different eyes, one open and one closed, be meant metaphorically? The previous three objections have reminded us of the difference between perceptual and interpretive knowledge, and the difference between perception and memory. In previous dialogues, beginning with the *Meno*, the dialogue most often alluded to in the *Theaetetus*, memory was used as a metaphor for a latent component to knowledge furnished not by the senses but by the mind itself, the analogue of Aristotle's "active intellect." Activated by perception, this latency may be "recollected," making possible judgments of predication ("This is beautiful") and interpretive knowledge ("Justice is the harmony of the tripartite soul"). In the dialogues after the *Meno* recollection is pictured as an intellectual "seeing" of the forms.¹⁰ And shortly hereafter in the *Theaetetus* we will be told that there are two kinds of seeing and two kinds of failure to see.¹¹ The philosopher sees what lies "above" although he may be blind to what lies at his feet or in front of his eyes (174a-c), while others see what is at their feet and before their eyes but cannot see the whole nor what is "above" them (174e-175d, 176e). The "higher" realm of the philosopher is that of divinity and goodness, while the other is that of the mortal and evil (176a).

Are these two kinds of seeing prefigured in the argument about the open and closed eye, an argument which is announced as "the most formidable" but which is a joke if taken literally?¹² We need not try to decide whether Plato intended this or not. The only im-

⁹ Book 4, 436b ff.: a real contradiction must refer to the same time, the same part of the subject, and the same object. In the present case we are speaking of different parts (eyes) of the subject and so there is no contradiction.

¹⁰ E.g., *Phaedrus* 247c ff., *Republic* 7.516a-b, *Parmenides* 132a.

¹¹ Cf. *Republic* 7.517d-518b; also Aristotle's distinction between what is most clear to us and what is most clear in itself (*Metaphysics* 1.1.993b9-11, 7.3.1029b3-12).

¹² Socrates goes on to say that similar problems would arise if someone were to ask whether we can know the same thing sharply (*οξύ*) and dimly (*ἀμβλύ*), close at hand (*ἐγγύθεν*) but not at a distance (*πρόρωθεν*), intensely (*σφόδρα*) and quietly (*ἡρέμα*) (165d). According to the doctrine of recollection, one might say that sensibles are perceived sharply, close at hand, and intensely, while intelligibles are perceived dimly, at a distance, and quietly.

portant question will be if the doctrine of recollection may usefully be brought to bear on the problems of the *Theaetetus*, and this will be considered in due course.

The distinction between perceptual and interpretive knowledge becomes all but explicit when "Protagoras," in order to defend his theory against the preceding refutations, distinguishes knowledge in the previous sense from wisdom. Speaking for Protagoras, Socrates reaffirms that each of us is the measure of all things because "what is" cannot mean anything other than what appears to a perceiver. But although in this sense everyone is equally knowledgeable, wisdom may be distinguished from such knowledge as the ability, "when bad things appear and are for someone, to implement a change and make good things appear and be to him" (166d). Thus interpretive or theoretical knowledge exists in addition to perceptual knowledge, but it is of a pragmatic rather than factual nature. It does not tell us what exists but only what is desirable and how to achieve it. It is in this sense that doctors, educators, and sophists are wiser than ordinary people. They replace the worse with the better, but not the false with the true. There is no such thing as falsity "because it is impossible to think [*δοξάζειν*] that which is not" (167a).

"Protagoras" closes with a Socratic appeal for fairness and seriousness in argument so that

your partners will blame themselves for their confusion and aporia, rather than blaming you, and they will follow and love you, and hate and flee from themselves to philosophy in order that, by becoming different, they may be liberated from their former selves. (168a)

The sentiment is Socratic rather than Protagorean, and points out the difference between them, which will soon be elaborated in Socrates' "digression." For Protagoras, wisdom means the ability to get rid of unpleasant perceptions in favor of pleasant ones; for Socrates, it means getting rid of one kind of life in favor of another.

III

The first set of four objections was aimed at the Protagorean doctrine understood as perceptual knowledge, and forced the distinction between perceptual and interpretive knowledge. The next

set, also of four objections, will be in terms of interpretive knowledge alone.

1. The first refutation of this series is the famous palintrope or self-refutation argument. "Shall we say that people's beliefs are always true, or sometimes true and sometimes false? On either alternative it follows that they don't always believe what is true but both" (170c). The conclusion obviously follows from the second alternative, of which it is a restatement. The subsequent argument is designed to show that it must follow from the first as well. The argument may initially be simplified as follows. The minor premise is that people generally disagree with Protagoras' claim that each person is the only judge of what is true for him. They think that different people have different degrees of wisdom about different things, and that wisdom is true thought and that ignorance is false belief (170c; cf. 170a-b). The major premise is that Protagoras claims that what people believe is true (171c). The conclusion follows that Protagoras must concede the general belief to be true, that not everything we believe is true. Since this contradicts his own position the latter must be false.

The actual course of the argument is more complicated because of Protagoras' insistence that truth is always relative to some believer. A belief is not true simply, but true *for* someone. Accordingly, the way the argument puts it is that Protagoras' theory may be true for him but false for tens of thousands of others (170e). It further follows that, if the theory were right, then if no one believed it it would *ex hypothesi* be false for everyone and therefore false. And if no one believed it but Protagoras, then:

First, by as much as those who believe it outnumber those who do not, it is that much more not true than true. . . . Second comes a most elegant point: he accepts that the opinion of those who disagree with him about his own opinion—in that they believe it is false—must somehow be true, since he agrees that what anyone believes really is. (171a)

The validity of this argument has been much debated.¹³ It is sometimes felt that the reasoning depends on an illicit transition from "true for someone" to "true" simply: Protagoras would accept

¹³ Cf. Sayre, 88-92; Myles Burnyeat, "Protagoras and Self-Refutation in Plato's 'Theaetetus'," *Philosophical Review* 85, no. 2 (April 1976): 172-95; and Jay Newman, "The Recoil Argument," *Apeiron* 16 (1982): 47-52.

that his theory is not true for most people but it would still be true for him and no contradiction would arise. But such a defense would be disingenuous. Protagoras wants to persuade us that his theory is true for everyone, otherwise his arguing for it, publishing it, and teaching it would be inexplicable. It would be damaging for Protagoras to be forced to admit that his theory is true *only* for himself (and perhaps a few others), but false for everyone else. Moreover, having admitted that, it would be difficult for him to deny that the theory is false *in general*.¹⁴

What this argument demands of Protagoras is that he acknowledge that *at the level of interpretation* not all judgments are equally valid. He was willing to acknowledge that at this level we can distinguish beliefs that are pragmatically superior from those that are pragmatically inferior, but not beliefs that are true from those that are false. The present argument makes the point that, on the contrary, Protagoras does regard his interpretations as truer than those of nonrelativists, and that unless he acknowledges that his perceptual relativism ceases to be relativistic at the level of theory or interpretation, he cannot help but undermine his entire position. He must concede that no one "is the measure of any single thing that he does not understand [*μᾶθῃ*]" (171c). Perception may be relativized, but understanding may not.

2. This is followed by a refutation which is interrupted by Socrates' digression. Socrates begins by recapitulating the claim made earlier in Protagoras' defense: although sensible qualities are just as they appear to each of us, one person may be wiser than another in pragmatic pursuits such as medicine (171e). The same dichotomy now appears in the larger context of the state. According to the theory, values are relative to the state, as *sensa* are to the individual:

Regarding what is noble and shameful,¹⁵ just and unjust, pious and not, however each state legislates these in accordance with its beliefs, that is how they in truth *are* for it. And in these matters no one is

¹⁴ If Protagoras were to rise from the ground up to his neck, Socrates says, he would accuse us of talking nonsense before sinking back and running off (171d). This is sometimes taken to be an admission by Plato that the argument is flawed, but, as Burnyeat points out (p. 191), the fact that Protagoras would run away after repudiating the conclusion suggests that his reasons would not be good ones.

¹⁵ This translation of *καλὰ* and *αἰσχροῦ* fits the context better than "beautiful and ugly."

wiser—neither one individual than another, nor one state than another. . . . None of these has by nature an essence [οὐσίαν] of its own, but rather the common belief becomes true when it is believed, and for as long a time as it is believed. (172a,b)

But when it comes to what is *advantageous or disadvantageous* to the state, Protagoras would not deny that one adviser differs from another, and one state from another, with respect to truth. He would not dare to say that whatever a state believes to be in its advantage necessarily is so (172a-b). The earlier distinction between perception and interpretation is here extended by analogy into a distinction between facts and values.

It is significant that the long digression (172c-177c) begins just at the point where values are ascribed to convention rather than nature. One of the functions of the digression is to repudiate the claim that justice and piety are arbitrary values without essence in nature. Rather, they are precisely the natural essences that the philosopher strives to know (175c, 176b). It is acquisition of this kind of knowledge that requires the "courage" spoken of in the dialogue's opening passages. Knowledge of this kind would be different both from perceptual and interpretive knowledge of the corporeal world, as distinguished above. The latter two correspond to the lowest levels of the divided line, *eikasia* and *pistis*. *Eikasia*, as portrayed in the Cave, is simply the uncritical awareness of passing perceptions. *Pistis*, which is the highest awareness of the corporeal world, must then be our interpretation of the former experiences.¹⁶ In the terminology of the Divided Line, the kind of knowledge referred to in the digression would be *noēsis*. The remaining kind of knowledge, *dianoia*, the drawing out of the implications of one's initial postulates, has been illustrated throughout the dialogue by the method of hypothesis.

The digression is reminiscent of the middle books of the *Republic* (especially the Divided Line and the allegory of the Cave) because it deals with the difference between a life devoted to corporeal, mortal values, and one devoted to intelligible, divine values. The re-

¹⁶ Judging from *Republic* 7.516c-d, *eikasia* would seem to correspond not only to sense perception but also to what Aristotle, at the beginning of the *Metaphysics* (980b28-981b10), calls "experience" (ἐμπειρία) in contrast to "art" (τέχνη) and "science" (ἐπιστήμη): i.e., an aggregate of memories not yet reduced to rules and principles. Such reduction, when it does not go beyond the sensible world, would correspond to *pistis*.

semblance between the two sections extends not only to their content but also to their placement: the *Theaetetus* digression, like the middle books of the *Republic*, occurs in the very center of the dialogue and breaks into the beginning of the discussion of a political question, which is subsequently resumed as if the digression had never taken place.

After the digression Socrates reiterates the beginning of the previous argument: People like Protagoras may claim that *justice* is only a matter of what is legislated by the state, but no one would say that whatever a state thinks is *good* or "advantageous to itself, really is so" (177d). Whether it is so or not can only be determined in the future. But Protagoras can hardly maintain that each of us is the measure of what is going to happen. Rather, the ability to make predictions is what sets experts apart from ordinary people in matters such as medicine, food, and music, and what sets Protagoras apart in matters of law (178a-e). It follows that some of us are wiser than others, and that it is they who are the measure,¹⁷ not ordinary people (179b).

"Protagoras" had already agreed, in Socrates' defense of him, that some people are wiser than others in that they are able to replace unpleasant sensations with pleasant ones, but he denied that this had anything to do with truth or falsity (166d). Socrates here opposes that denial by pointing out that the ability to make such replacements successfully is the ability to predict what will happen, and predictions are indeed qualifiable as true or false.

At this point Socrates makes fully explicit the difference between the (infallible) perceptual and (fallible) interpretive levels of knowledge that has been implicit throughout the earlier discussions:

There are also many other ways to establish that not all of everyone's beliefs are true. However, with regard to the passing impressions from which our sense perceptions and corresponding beliefs arise, it is harder to confirm that they are not true. . . . It may be that they are unassailable, and that those who say they are fully clear and instances of knowledge are perhaps right. (179c)

3. Socrates next turns to the flux ontology underlying the theory that perception is knowledge. The connection between the two the-

¹⁷ μέτρον. Perhaps Plato's choice of terminology in the *Statesman's* doctrine of "due measure" (πρὸς τὸ μέτρον) hearkens back to this discussion. In any case there, as here, the doctrine is justified in terms of the arts (*Statesman* 284a).

ories is presumably that, because everything is in flux, all that exists is the "passing impressions" (this was the point of the theory of perception developed earlier [156a-157c] and repeated here [182a-b]), and there can be no other knowledge than this. The flux theory is that everything is in motion, not only in the sense of movement in space, but also in the sense of alteration (181c-e). It follows from this that the sensuous qualities which we perceive are changing at the very moment that we perceive them, and the act of perception itself is always changing into nonperception. Moreover, since perception is knowledge, knowledge also ultimately collapses into an identity with nonknowledge (182c-e). Consequently, "if everything is in motion, every answer about anything one is asked will be equally right" and language itself will break down (183a-b).

In the *Parmenides* Parmenides says to Socrates,

if anyone does not admit the existence of forms of things or mark off a form under which each individual thing is classed, he will not have anything on which to fix his thoughts, as long as he does not admit that the idea of each thing is always the same, and in this way he will utterly destroy the power of discourse. (135b-c)

Is the present argument meant to remind us of this warning, and thereby of the theory of forms? If so it would explain the puzzling fact that Parmenides is mentioned immediately before and after the present passage but to no obvious purpose. Beforehand Socrates says that he "nearly forgot that others declare the opposite" of the flux theory. These others are Melissus and Parmenides, whose views Socrates proposes to examine after they examine the proponents of flux (180d-181a). Afterwards Theaetetus reminds Socrates of this next task but Socrates declines to pursue it, on the grounds that they could not do justice to Parmenides' views except at great length (183c-184a). Socrates' remark, "I met him when I was quite young and he quite old" (183e), is clearly meant to remind us of that dialogue.

4. If this was an indirect reminder of the theory of forms, the next section is a direct reminder of it. Socrates raises the question whether there is some one part (*μίαν τινὰ ἰδέαν*) within us with which we perceive whatever each of the senses perceives only separately—something that perceives sounds *and* sights, and so forth, each of which is proper to a specific sense (184d-e). The test is whether there is anything we can think about that involves more than one

sense. If there is, this common factor cannot be reduced to what the senses give us.

In fact there are several such common qualities. We can think that the objects of seeing and hearing both *exist*, and that each is *different* from the other and the *same* as itself (185a). Socrates thus generates three of the five “greatest kinds” of the *Sophist*, existence, sameness, and difference (the other two, motion and rest, are implicit in the opposition between the Heracliteans and the Eleatics). He further establishes that the mind will discern that each of these objects is one, and both together are two, and can also ask whether they are similar or dissimilar (185b). To these qualities Theaetetus adds odd and even (185d), two of the traditional Platonic forms. And Socrates, remarking that Theaetetus has shown himself to be not ugly, as Theodorus had claimed, but beautiful and good, proceeds to add to the list the forms beautiful and ugly, and good and bad (186a). What all these qualities have in common is that the soul somehow perceives them through itself rather than through the body’s sensory faculties (185e).

Now, conceptions about being (οὐσία) and value (ὠφέλεια) can be attained, if at all, only through a long and difficult education, and truth and knowledge are inaccessible unless one can discern being. Accordingly, knowledge can be found only through the qualities that the soul finds by itself, rather than those that it received from the bodily senses. Knowledge cannot therefore be the same as sense-perception (186c–e).

Are these qualities in fact the Platonic forms? Like the forms of the *Republic*, they are apprehended only as the result of a long and difficult education,¹⁸ but whether they may be regarded as “separate” forms or not cannot be answered on the strength of this passage. At the very least they correspond to the forms’ aspect as “universals,” although even this is not explicit. Unlike the characterization of forms in *Republic* 10, they are not said to be posited for “each multiplicity to which we give the same name” (596a). Instead we have a plurality of senses (sight, hearing, and so on) to which we can apply the same interpretative categories. But it comes

¹⁸ In the *Republic*, six stages are specified: 1) arithmetic: 525a–b; 2) plane geometry: 526c; 3) solid geometry: 528b; 4) astronomy: 528e; 5) harmony: 530d; 6) dialectics: 531d. Theaetetus has studied the first five of these with Theodorus (145c–d).

to the same thing. To say that we both see and hear something beautiful is to say that "beautiful" is not a unique name but is rather one which can be applied to a plurality of sensory experiences, that is, it is a universal. The present passage affirms the need for universals, and further affirms that these universals are not reducible to sensory information, "but rather the soul, itself by itself, discerns what is common to all" (185d-e).

IV

The above discussions show, Socrates says, "that we should not seek [knowledge] in perception at all, but in whatever the name is, when the soul, itself by itself, is engaged with what is real" (187a). Theaetetus revises his definition of knowledge to "true opinion" (or true "judgment" [δόξα]), but Socrates wonders how an opinion could ever be false (b-d). In an attempt to answer this he develops six models of knowledge, which, like the earlier refutations, may be construed as progressively more adequate hypotheses.

1. The first model is the simplest, abstracting from learning and forgetting, and concentrating only on knowing and not knowing. On this model false opinion can mean only that we think that 1) something we know is either a) something else that we know or b) something that we don't know; or else that 2) something we do not know is either a) something else that we do not know or b) something that we know. All these are interpreted as judgments of identity, as if we said, "Socrates, whom I know, is Theaetetus, whom I also know," or "Socrates, whom I know, is someone whom I do not know." Consequently they are dismissed as implausible accounts (188a-d).

2. The second model substitutes "being" for "knowing," so that to have a false opinion means to judge "what is not" about something (188d). Here the "is" of judging is interpreted as existential rather than identificatory, but to no avail. Earlier Protagoras had insisted that there is no such thing as falsity "because it is impossible to think that which is not" (167a). And here too Socrates concludes that "thinking what is not" = "thinking nothing" = "not thinking" (189a).

3. In the next model Socrates combines the first two. Now false opinion is "interchanged opinion" (ἀλλοδοξία), which means that we "always have an opinion about something that is, but of

one thing instead of another" (189b-c). The first clause is existential, the second identificatory. Theaetetus approves of this model, "for when someone thinks beautiful instead of ugly, or ugly instead of beautiful, then, most truly, his opinion is false" (189c).¹⁹ But Socrates demurs, saying that we would never say that "the beautiful is ugly" or "the unjust is just" or "the odd is even" (190b).

Socrates has perverted Theaetetus' meaning. Theaetetus clearly meant the copula to be one of predication: my opinion is false if I believe that a beautiful thing is ugly (something unfamiliar may seem ugly to me at first, but beautiful on further acquaintance). But Socrates misinterprets the copula as one of identity, as in the first model. Plato gives with one hand and takes back with the other. He has Theaetetus remind us that the function of the copula may be predication (which would go a long way toward solving the present aporia), but he then has Socrates suppress the concept. Perhaps his intention is to remind us of the participation of things in forms (the ontological basis of predication), but without making the theory of forms explicit in the *Theaetetus*.²⁰ In fact this is the

¹⁹ Socrates' rebuke of Theaetetus for saying that something can "truly" be "false" seems to be a reference to self-predication and the *Phaedo*'s doctrine of opposites. The aporiai at 154c-155c recall the similar aporiai of the *Phaedo* (96e-97b, 100e-102b) that led Socrates to the theory of forms. In a similar context in the *Sophist* (263d), the Eleatic stranger uses a parallel phrase. In the present passage Theaetetus had said, "truly thinks what is false" (ἀληθῶς δοξάζει ψευδῆ), while the stranger will say, "truly there is a false statement" (ἀληθῶς γίνεσθαι λόγος ψευδῆς).

²⁰ This would so far tend to corroborate Cornford's suggestion that, "The Forms are excluded in order that we may see how we can get on without them; and the negative conclusion of the whole discussion means that, as Plato had taught ever since the discovery of the Forms, without them there is no knowledge at all" (p. 28). Cornford interprets the many allusions to earlier dialogues in which the theories of forms and recollection were presented as hints that those doctrines should be brought to bear on the present discussions. McDowell, on the contrary, thinks that such allusions "can be read as an implicit criticism of the Theory of Forms and the Theory of Recollection" (p. 219); and that "it is hard to see how Plato could have supposed, as Cornford's thesis would imply, that a restatement of the Theory of Forms would solve all these problems at a stroke" (p. 258)—a view that he shares with Glenn Morrow ("Plato and the Mathematicians: An Interpretation of Socrates' Dream in the *Theaetetus* [201e-206c]," *Philosophical Review* 79 [July 1970]: 309-33; p. 312). Others, such as Sayre (pp. 58 n.2, 135) and Jürgen Sprute ("Über den Erkenntnisbegriff in Platons *Theaitet*," *Phronesis* 13 (1968): 47-67; pp. 52, 67), are closer to Cornford's position. I shall argue that the theories of forms and recollection can, in fact, largely overcome the aporiai of the *Theaetetus*.

closest that the *Theaetetus* ever comes to exploring predication, even though it is clear from the earlier (and later) dialogues that that is where the models for true and false belief must be sought.

4. At this point learning and memory are added to the model (191c-d), after having been expressly excluded since the beginning. Learning is compared to the impression made by a shape in a block of wax, and memory is the retention of that shape. Socrates now goes through an odd, selectively exhaustive²¹ list of types of judgment in order to discover cases where false opinion is possible (192a-c). It is not possible in the following cases (1a translates as, "Things which one knows and remembers but does not perceive, are other things which one knows and remembers but does not perceive"; 3a as, "Things which one knows and perceives and has the [wax] impression corresponding to the perception are other things which etc."):

- | | |
|--|--|
| 1a. $(KM \sim P)_1$ is $(KM \sim P)_2$ | 2a. P_1 is P_2 |
| b. K is $\sim K \sim M$ | b. P is $\sim P$ |
| c. $\sim K_1$ is $\sim K_2$ | c. $\sim P_1$ is $\sim P_2$ |
| d. $\sim K$ is K | d. $\sim P$ is P |
| 3a. $(KPC)_1$ is $(KPC)_2$ | 4a. $(\sim K \sim P)_1$ is $(\sim K \sim P)_2$ |
| b. $(KPC)_1$ is $K_2[\sim P]$ | b. $(\sim K \sim P)_1$ is $\sim K_2[P]$ |
| c. $(KPC)_1$ is $P_2[\sim K]$ | c. $(\sim K \sim P)_1$ is $\sim P_2[K]$ |

5. "It remains in the following cases, if indeed anywhere, that [false opinion] will come about" (192c-d):

- a. K_1 is $(KP)_2$
- b. K_1 is $(\sim KP)_2$
- c. $(KP)_1$ is $(KP)_2$

6. "False opinion remains in the following case[s]":

- a. $(KP \sim C)_1$ is $(KP \sim C)_2$ (193b-c, 194a)
- b. $KP \sim C$ is $K \sim P \sim C$ (193d)

I would like to concentrate on one oddity in this elaborate classification, that is, what happens to the category of memory (M).

²¹ Jacob Klein makes the intriguing observation that just as "Theodorus . . . distinguished *fourteen* oblong rectangles from the *three* equilateral ones; . . . Socrates also distinguishes *fourteen* cases in which false opinion is precluded from the *three* cases which admit it" (*Plato's Trilogy* [Chicago: University of Chicago Press, 1977], 128).

Although memory is presented as the distinctive feature of the wax model (191d, 194d-e), it is mentioned in almost none of the cases specified. It is present on both sides of 1a, then only on one side of 1b, and then not at all in the rest of the classification. Moreover, when 1a, 1b, and 1c are restated between steps 5 and 6, M is left out altogether even though P is now specified more explicitly (193a-b). It is left out again when Socrates reduces all the examples to a general statement: "I could never have false opinions about you and Theodorus either when I know both of you or when I know one but not the other; and the same applies to perceiving, if you follow me" (193b). And it is left out of the two summaries as well: at 194a-b Socrates says that false opinion turned out to be impossible about things that we do not know and have never perceived, but possible about things which we both know and perceive; at 195c-d he summarizes their findings as, "false opinion exists neither in the relation of perceptions to one another nor in thoughts [*διανοίαις*] but in the fitting together of perception with thought." Similarly, in case 6a we were told that the reason for the mismatch is that the perception is indistinct (193b-c), but nothing was said about the possibility that one's *memory* might be indistinct, although the possibility is explicitly built into the model (194e).

The reason that memory disappears from consideration seems to be that it is conceived in a way that equates it with active knowledge. This can be seen from the fact that, in the three places where it does appear, its truth value is identical with that of knowledge. On this model, to know is to remember and to remember is to know. The conspicuous omission of memory after 1b calls our attention to the fact that what is distinctive about memory, the fact that it may become partially but not wholly lost, is not being considered in this model. That will be remedied by the "having/possessing" distinction made in the next model. If all of this is meant to make us aware of the inadequacy of the present model of memory, the elaborateness of the device would seem to be an indication of the importance of memory to the dialogue's concerns.

The wax model is successful in accounting for error in at least some cases of sense-perception, but it fails when applied to intelligible rather than visible things, for in that case one can no longer speak of error as having to do with "the fitting together of perception with thought." For example, when one mentally adds five and seven and thinks the answer is eleven, one then thinks that eleven, which

one knows, is twelve, which one also knows. But this possibility was ruled out in the preceding classification (1a), so the model fails (196a-b). This hypothesis, too, has now been discredited, and a fifth one is proposed.

5. The fact that memory can be latent rather than actualized is illustrated at the very beginning of the aviary model. Socrates asks Theaetetus, "Have you heard what people now say that knowing is?" and Theaetetus replies, "Perhaps, but I do not remember at present" (197a). Appropriately, Socrates goes on to distinguish "having" knowledge, which implies awareness, from "possessing" it, which does not. When we learn something we possess it, but if like Theaetetus we cannot recall it, then we cannot be said to have it at that moment. It is as if our mind were an aviary,²² empty at birth, and the knowledge that we acquire through learning were birds that we captured for the aviary. When we first catch one and imprison it we may be said to possess it, but we do not actually have it until we catch hold of it again (197c-e).

The model has the advantage over the wax model that it can account for knowledge that is latent rather than actual. But it has the disadvantage that it is no longer possible to match knowledge with perception—the birds do not seem to refer to anything outside the aviary. This does not seem at first to be a disadvantage, however, for Socrates' examples are no longer concerned with perceptual knowledge but only with mathematics. It is as if we have now moved beyond *pistis* to *dianoia* on the Divided Line. But the model cannot be assimilated to the doctrine of recollection because it posits a mind empty at birth and filled entirely by empirical means. In fact the suggestion that one learns mathematics by having it handed over from teacher to student (198a-b) flies in the face of the *Meno*.

By distinguishing between possessing (latent) and having (active) knowledge, this model enables us to avoid the paradoxical conclusion that false opinion is simply not knowing what one knows

²² The fact that it contains "all kinds of birds, some in flocks apart from the others, others in small groups, and some alone flying in any way among them all" (197d), may be a reference to the method of collection. The single birds might be knowledges that have not been related to others, the small groups may represent various knowledges that have been discerned as embraced within a single "kind," and the flocks may represent kinds that have been synoptically perceived within a more general kind.

(199c). We can now say that it may be not having what one possesses. But two other difficulties arise. If false opinion is the mistaking of one bird for another—grasping the knowledge of eleven, for example, when one ought to be grasping that of twelve—then we make a mistake precisely by grasping a knowledge. Thus,

First, for a person having knowledge of something, to be ignorant of this very thing, not through his ignorance but through his knowledge; second, to have the opinion that this is something else and something else is this; how can it not be very absurd for the soul, when knowledge has come to it, to know nothing and be ignorant of everything? (199d)

Theaetetus suggests circumventing this problem by supposing that the aviary contains ignorances as well as knowledges (199e), but Socrates replies that in that case the problem that the aviary was meant to solve—"How can we mistake one thing for another"—reappears within it. We must ask how we can mistake an ignorance for a knowledge, and any attempt to answer the question would involve either an *aporia* or an infinite regress (200a-c).

But in a sense Theaetetus is right and we do have ignorance within the aviary: that was precisely the point of distinguishing between possessing knowledge (latently) and having it (actively). When we cannot grasp a knowledge that we possess, we are at that moment not in a state of knowing. Possessing, as distinguished from having, is a mixture of knowledge and ignorance. Let us consider the model more closely.

Socrates says that mistaking eleven for twelve would be like mistaking a pigeon for a dove (199b). The analogy becomes clearer when later, in a different context, Socrates says that we have the same number in mind "when we say one, two, three, four, five, six; or twice three; or three times two; or four plus two; or three plus two plus one" (204b-c). This means, if we apply it to the other case, that our knowledge of eleven must include $6 + 5$ and $7 + 4$, while our knowledge of twelve would include $5 + 7$, which sufficiently resembles the others that it can readily be mistaken for them,²³ as a pigeon is for a dove. When we make such a mistake we place into our aviary an "ignorance," that $7 + 5 = 11$, which we may continue to find there.

²³ Cf. R. Hackforth, "The Aviary Theory in the *Theaetetus*," *Classical Quarterly* 32 (1938): 27-9; p. 28.

How then would we answer Socrates' question as to how we can think that something we know is something we do not know? On the wax model such false opinions were explained as a mismatching of perception to knowledge because of its indistinctness. But the aviary model cannot provide such an explanation because the birds, unlike the wax impressions, do not *refer* to anything beyond themselves. It often happens in Platonic dialectic that if two hypotheses are rejected, a third is proposed that combines the positive features of each while avoiding their weaknesses, as model 3 in this section combined models 1 and 2. No sixth model is proposed here to follow the wax and aviary hypotheses, but if we try to imagine what such a model would have to be like, it would be one which combined the "recognition" factor of the wax model with the "latency" factor of the aviary model.²⁴ In view of the emphasis on memory both in the present sections and in the dramatic byplay of the opening of the dialogue, and in view of the frequent allusions to the *Meno*, it is significant that the doctrine of recollection does in fact incorporate both the features of latency and recognition.

That we are meant to come away with something positive from these discussions is suggested by the fact that Socrates could have refuted the "knowledge is true opinion" definition at the very outset if he chose to. After the aviary model is dismissed Theaetetus reiterates this as still the best definition he can devise, and Socrates replies that true opinion cannot be the same as knowledge because jurors can be persuaded to have a true opinion about something they have not witnessed, whereas only eyewitnesses have knowledge (201b-c). Since Socrates did not offer this simple but crushing refutation at the outset, but chose to develop the abortive models in detail, it is worth trying to see the value of their implications.

Socrates' remark, that we can only know what we have seen

²⁴ John Ackrill points out that "at the very beginning (191d5), Socrates says: 'whatever we want to remember, of the things we see or hear or *think of* we imprint on the block'. Nothing is made of this last case within the wax tablet section. But at the transition to the aviary it is clearly implied that items thought of and imprinted on the block are (or include) abstract or universal ideas. . . . Thus the account of misidentification in terms of the misconnecting of two items . . . can be widened to cover misdescription and misclassification" ("Plato on False Belief: *Theaetetus* 187-200," *Monist* 50 (1966): 383-402; p. 394). To put it differently, we are prepared in advance for the fact that the wax model can be made to converge with the aviary model.

(201b), is reminiscent (at a different level) of the claim which lies at the basis of the doctrine of recollection. As the *Meno* puts it, knowledge is possible because in some sense we have already "seen" reality.²⁵ We might extend the aviary model in this direction. In some sense we have latent knowledge of reality *a priori*, but because it is only latent we cannot always grasp it, like the birds of the aviary. When we perceive something (whether with the senses or the mind) it reminds us of one of these birds, and if we can grasp the correct bird we then have knowledge of the thing perceived. But because many of the birds resemble one another, and because they are (as latent) indistinct,²⁶ we can mismatch a perception with a latent knowledge. This model (even in cases that do not require an *a priori* factor) avoids the paradoxes of the other one because when we make a mistake we are not in active possession of knowledge. Knowledge arises only from the correct match (recognition) between latent knowledge and perception.

V

Even this model would, however, leave us with another problem: how can we tell when we are matching correctly? How can we distinguish in practice between the true matching of $5 + 7 = 12$ and the false matching of $5 + 7 = 11$, or, less straightforwardly, between "Justice is an arbitrary convention" and "Justice is a natural value?" Proponents of a correspondence theory of truth tend to make use of a coherence model for validation of such correspondence, since no other validation is possible, and that seems to be the role played by logos, both here and in the *Meno* (98a).²⁷

In response to Socrates' counterexample about juries, Theaetetus suddenly recalls something that he had forgotten.²⁸ he once

²⁵ 81c. Cf. *Phaedrus* 249e-250a.

²⁶ Cf. note 12, above.

²⁷ Amelie Rorty puts it too strongly when she writes, "Plato saw what Socrates either did not see or did not explicitly discuss: that there is a conflict between treating knowledge as a direct witnessing of the forms *αὐτὰ καθ'αὐτὰ*, and treating it as the ability to give valid reasons and explanations" ("A Speculative Note on Some Dramatic Elements in the *Theaetetus*," *Phronesis* 17 (1972): 227-38; p. 236). There is certainly a *difference* between them, but not necessarily a conflict.

²⁸ At 148e he said that he has never heard a definition of knowledge.

heard someone say that knowledge is true opinion with logos (201c). He does not think that he can explicate this claim himself, but thinks that he could follow someone else who did. Socrates replies, "Listen, then, to a dream in exchange for a dream, [which] I seemed to hear from certain people." The puzzling description of this theory as a dream has given rise to several explanations.²⁹ The one that I would like to propose has to do with the use of the term in a previously cited passage of the *Meno*:

At present these opinions, having just been stirred up in him, are like a dream. If, however, one were to ask him the same things many times and in many ways, you know that finally he would have knowledge of them that is no less accurate than anyone's. (85c-d)

Perhaps the use of this term here in the *Theaetetus* is to suggest that the following theory is one that we should be able to recognize as true, but only indistinctly, as Meno's slave recognized the truth of the mathematical demonstration. It is a not yet adequate recollection of the nature of knowledge. But because of its lack of distinctness, Theaetetus, who like the slave can follow it but not exhibit it himself,³⁰ will never successfully formulate it in this dialogue.

²⁹ A. E. Taylor suggests that calling the theory a "dream" may be "because the person who is responsible for it had only produced it after the death of Socrates" (*Plato: the Man and his Work* [New York: Humanities Press, 1952], 346); cf. Cornford (p. 144). Runciman believes, "That the 'dream' did in fact derive from some other philosopher or school seems virtually certain" (p. 43). Burnyeat points out that "telling someone his own dream" was a proverbial expression for telling him something he already knows only too well from his own experience (cf. LSJ s.v. *ὄναρ*) ("The Material and Sources of Plato's Dream," *Phronesis* 15 [1970]: 101-22; pp. 105-6). For Rorty, "his dream is that a certain theory about recollection is true: the theory required to support his confidence that he will be able to recognize a view he cannot formulate exactly, one that he has heard only by hearsay, without having worked it out himself" (p. 230). Stanley Rosen argues that, in opposition to the dialogue's previous emphasis on analysis, "dreaming produces the unity of the whole, or better, contributes to making that unity visible" ("Socrates' dream," *Theoria* 42 [1976]: 161-88; p. 183).

³⁰ "This confidence in recognition can be interpreted as a demythologized, secularized version of the theory of *ἀνάμνησις*, with which some interpretations of the dream of elements is associated" (Rorty, p. 230). Rosen's interpretation of the dream metaphor as a reference to an intuition of the whole, and Burnyeat's as a reference to something familiar to us from our experience, are compatible with this, if only implicitly. Rosemary

With Socrates as his midwife Theaetetus produces three versions of the theory, the third of which itself has three divisions. The theory is "that the primary elements from which we and everything else are composed, have no logos." They can only be named; one cannot even say that an element is or is not, or one would be adding being or not being to it. But one can give a logos of composite things by naming the elements of which they are composed (201e–202c). Theaetetus recognizes this as the theory he has heard. The paradigms that this theory has in mind, Socrates says, are "the elemental letters and composite syllables of writing. Or do you think that the one who said the things we have mentioned was looking somewhere else?" (202e). Theaetetus answers in the negative, but others have not always been so sure.³¹

1. Socrates first points out that it makes no sense to say that the syllable can be known on the basis of its elements, its component

Desjardins, who also makes the connection between Theaetetus' dream and that of Meno's slave, further cites the *Statesman* (277d): "it would seem that each of us knows everything that he knows as if in a dream" ("The Horns of Dilemma: Dreaming and Waking Vision in the *Theaetetus*," *Ancient Philosophy* 1 [1981]: 109–26; p. 114).

Earlier, Socrates described the soul's thinking as "nothing other than a dialogue with itself, in which it asks itself questions and answers them, and affirms and denies" (189e–190a). According to Meno's paradox, if we need to ask the questions in the first place, how can we answer them by ourselves? Conversely, if we can answer them, why did we need to ask them? On the theory of recollection this kind of dialogue is possible because we know the answers latently but not overtly, and our self-questioning is designed to bring the "dream" into clearer focus. The same is true of Socrates' maieutic questioning. Socrates says that he is like a midwife in that he is sterile (with regard to wisdom), and that he has always been so (150b). But he had previously said that although midwives must be past child-bearing, they must previously have given birth, "because human nature is too weak to acquire an art concerning things with which it is not experienced" (149b–c). If Socrates then can be a midwife to wisdom he must have something *like* a "memory" of wisdom even if he never had wisdom.

³¹ E.g., Winifred Hicken, "Knowledge and Forms in Plato's *Theaetetus*," *Journal of Hellenic Studies* 77 (1957): 48–53, pp. 234–5; Morrow, p. 328; Paul Friedländer, *Plato*, vol. 3, trans. Hans Meyerhoff (Princeton: Princeton University Press, 1969), p. 186. It is generally recognized that certain aspects of the dream theory are reminiscent of the theory of forms. Whether the refutation of the dream theory is thereby also a refutation of the theory of forms is, however, a matter of dispute. Rorty (p. 235) and Kunio Watanabe ("The 'Theaetetus' on Letters and Knowledge," *Phronesis* 32 [1987]: 143–165; p. 163) think that it does refute it, while Hicken (pp. 50–1) and McDowell (pp. 243–4) argue that it does not.

letters, if the letters themselves are unknowable because as elements no logos of them is possible (203a-d).

2. Socrates then distinguishes a “whole” (ὅλον) from an “all” (πάν):

Perhaps we should have proposed, not that the syllable is its elements, but that from these a single form [ἐν εἶδος] arises, which itself has a single Idea [ἰδέαν μίαν] of its own, different from the elements. . . . Let it be then as we just said, the syllable is a single Idea [μία ἰδέα] arising from the several conjoined elements. . . . It must be without parts . . . [because] the whole that arises from the parts must be some single form [ἐν εἶδος] that is different from all the parts.” (203e, 204a)

Socrates attacks this new hypothesis with a dilemma, the first horn of which immediately collapses the new distinction between whole and all. “A whole is . . . that from which nothing is missing, and that from which something is missing is neither a whole nor an all, which together become the same for the same reason” (205a). This begs the question by assuming that no account of a “whole” can be given that would satisfy the original stipulation that it is “without parts” and “different from the parts.”³² Can such an account be given? If a whole is without parts, how can one speak of it in terms of “the parts” at all? It is this oddity that makes Socrates’ refutation plausible. The answer would seem to lie in establishing that a whole is *correlated* to an all, so that one can speak of the parts of the all *in relation to* the whole, but not as *parts of* the whole.³³ How the first and second hypotheses may be integrated to achieve this will be implicit in the third hypothesis, below.

The second horn of the dilemma is that if the syllable is a whole

³² Also see McDowell: “at *Parmenides* 157c4-e2 Plato sets out an argument, exploiting the same principles as the above *reductio ad absurdum*, in order to show that what a part is a part of, i.e. a whole, is not an entity designated by the standard use of the expression ‘all the parts’ . . . Plato deliberately, and pointedly, uses against the dream theory a premise which he knows to be false” (pp. 243-4).

³³ Friedländer draws the interesting parallel that, “Just as, at the end of the dialogue’s first part, the ‘one single Form of the soul’ (μίαν τινὰ ἰδέαν, 184D3) emerged, the soul as a whole that is more than the sum of its perceptions . . . (187A5), so there emerges here on the side of things the ‘one Form’ that can no more than the soul be envisaged as an aggregate of elements” (p. 186). Also see Desjardin’s suggestion that the dilemma be read as a *reductio* to which the proper response is the affirmation of both horns, so that the complex must be *both* the same as and different from its elements (p. 115ff.).

which is not composed of parts, then it is as irreducible as the letters, and equally unknowable (by logos): "The syllable falls into the same form [*εἶδος*] [as the elements] if it has no parts and is a single Idea [*μία ἰδέα*]" (205d).

Socrates adds a more general objection to the "dream" theory. Our experience in learning writing and music has taught us that it is easier to know the elements than the composites, which is the opposite of what the theory claims (206a-b). He adds that this can be demonstrated in other ways as well (206c). In view of the way that the language in the above quotations irresistibly reminds us of the theory of forms, it would not be surprising if the primacy of knowing "uniform" forms over multiform individuals may be what is meant.³⁴

3a. Socrates leaves aside the all/part/whole question and turns to the question of what is meant by logos. The first hypothesis is that it means the mirroring in words of one's opinions. The hypothesis is dismissed because logos in this sense is natural to all normal people, so nothing would be gained by adding "with logos" to the definition of knowledge as right opinion (206d-e).

b. The second hypothesis is that logos means an account of something in terms of its elements, such as listing the parts of a wagon (207a). This is refuted by the observation that one may be able to enumerate elements without having knowledge in the normal sense. Someone might say, for example, that the first syllable of "Theaetetus" is spelled "The" ($\Theta + \epsilon$), but incorrectly think that the first syllable of "Theodorus" is spelled "Te" ($T + \epsilon$). In this case he does not *know* how to spell the syllable, but gets it right in the first case by right opinion. Therefore, on this understanding of logos, one can satisfy the definition without having knowledge (207d-208b).

Although this hypothesis does not further the investigation directly, the examples used have implications that further it indirectly. After the example of listing the parts of a wagon, Socrates adds that it would not, on this definition, count as knowing the wagon if one could name the wheels, axle, body, rails, and yoke but not the "hundred pieces of wood" from which they are built (207a); nor as knowing the name "Theaetetus" if one could list the syllables but

³⁴ Cf. *μονοειδής* at 205d with *Phaedo* 80b.

not the letters (207b). The reference to knowing the name by knowing the syllables reminds us that the previous discussion of whole and parts had altogether abstracted from the word as a whole, and asked only about the relationship between letter and syllable. But the meaning of the syllable comes from two directions: the letters which furnish its materials, and the word itself which gives the syllables their purpose and meaning. Similarly, the basic parts of the wagon can be explicated either in terms of the hundred pieces of wood from which they are constructed, or in terms of the unity of the wagon, which is their reason for being. The hundred pieces of wood are not a wagon until they are properly unified.³⁵

Implicit in the previous discussion was a conception of a "whole" that is not reducible to its parts. Implicit in this one is the conception of a unifying form that can explain the parts of an "all" from above instead of from below. The sixth of the fifteen aporiai that Aristotle raises in book 3 of the *Metaphysics* is

whether it is the genera that should be taken as elements and principles, or rather the primary constituents of a thing. . . . To judge from these arguments, then, the principles of things would not be the genera; but if we know each thing by its definition, and the genera are the principles or starting-points of definitions, the genera must also be the principles of definable things. . . . And some also of those who say unity or being, or the great and the small, are elements of things, seem to treat them as genera.³⁶

Essentially the same question underlies the present discussion of the *Theaetetus*. Plato, like Aristotle, turns to the nature of definition—a course subsequently pursued more intensively in the *Sophist*.

c. The final hypothesis is what *hoi polloi* would say, that logos is the ability to name the sign by which one thing is distinguished from everything else (208c), that is, the definition. But this hypothesis too must fail, because one must already know the difference between one thing and another in order to have an opinion about it in the first place, and so nothing new is gained by the addition (209a). This definition of knowledge will be either absurd or circular, de-

³⁵ This has not gone unnoticed. Cf. Rorty, p. 237; McDowell, p. 245; Rosen, pp. 185–6; and Burnyeat, "Socrates and the Jury: Paradoxes in Plato's Distinction Between Knowledge and True Belief," Supp. Vol. 54 of the *Aristotelian Society* (1980): 173–192, pp. 187–8.

³⁶ 3.3.998a21–b11, Ross's translation.

pending on whether the *logos* about distinctness is itself regarded as opinion or knowledge. If it is an opinion, then we are told to add an opinion (*logos*) to the right opinion we already have, and "to command us to acquire the very things which we have, so that we may learn the things that we already judge to be so, greatly resembles someone completely in the dark" (209e). If it is knowledge, then knowledge is defined in terms of itself and the definition is circular (210a).

In the evaluation of this hypothesis the only example considered is the definition of "Theaetetus" (209a-c). Consequently, definition is conceived only in terms of an individual thing rather than a form or kind. But as a preliminary model Socrates had defined the sun as "the brightest of the heavenly bodies that revolve around the earth" (208d). This example is ambiguous. Although the sun is, like Theaetetus, an individual, it is a unique individual of its kind and therefore, like universals, admits of a definition by species and differentia. It is not made clear here whether a definition of an individual within a many-membered *infima* species is possible at all (209b-c), but it is made clear that it is at least much easier to define a universal (208d). Moreover, the sun tends to be associated in Plato with the theory of forms.³⁷

How are we able to define the sun in spite of Socrates' *reductio*? The *reductio* is a restatement of Meno's paradox, but there is no question in this case of recollection since we are asking about a visible object. Nevertheless the answer is analogous: the explicit definition can be sought and recognized because we already know it implicitly. We have all the information necessary to conclude that the sun is the brightest heavenly object, even if that conclusion has never explicitly occurred to us. If we ask in turn how definitions are possible of the common properties that Socrates speaks of at 208d (unity, goodness, and so on), we will be lead to an analogous conception of latency, this time regarding nonempirical knowledge. Such a conception is to be found in the theory of recollection.

³⁷ E.g., *Republic* 507a-517c, *Phaedo* 99d. Cf. Sayre, p. 135. The sun is referred to not only here in the very last argument of the dialogue, but also in the very first argument (153c-d, the *Iliad*'s "golden rope"), and indirectly in the central digression (174a) where Thales is represented as the paradigmatic philosopher who is concerned with the heavenly bodies (of which the sun is defined at 208d as the brightest).

VI

We have seen that the *Theaetetus*' examination of knowledge goes through a progression of several different kinds of knowledge, a progression which reflects in a general way that of the Divided Line. It passes from perceptual to interpretive to mathematical knowledge, before grinding to aporia in a discussion which constantly evokes (but never invokes) the theory of forms and doctrine of recollection. The next step would be to return to the suggestions made by Socrates in the digression (and previously suggested by the dramatic byplay at the beginning of the dialogue), but never incorporated into the dialogue proper. In particular, the suggestion that the pursuit of wisdom is not ultimately satisfied even by adequate definitions, but eventually entails a change from one kind of life to another, like the "turning around of the soul" in the allegory of the Cave.³⁸

To our ears it seems strange that one's way of life should have anything to do with our intellectual ability to know things. There seems no reason why a thoroughgoing hedonist, who pursues philosophy as a profession because he is clever and can make money at it, should not be able to have a purely intellectual grasp of the nature of things without reforming his values and way of life. Even Plato's own doctrine of the tripartite soul seems to countenance this view, insofar as we need not be guided by reason, or, therefore, by the truths known by reason.

Although this is true of ordinary knowledge, at the highest level it may no longer be true. Here, what we know and what we are coincide. The consummation of the Divided Line coincides with the consummation of the tripartite soul. This is the doctrine of "purification" which Plato advances in the language of the mysteries.³⁹ The highest, "moral" forms can only be adequately grasped to the extent that we are capable of experiencing moral truth within ourselves, and we will only be capable of this to the extent that we are free of attachment to the pleasures of appetite and ambition. Perhaps the clearest evidence for this is to be found in Aristotle's *Nicomachean Ethics*, where we find that no adequate conceptual definition of goodness is possible, although we can define it merely

³⁸ *Republic* 7.518c.

³⁹ E.g., *Symposium* 210a-d, *Phaedo* 82d-83e, *Republic* 7.519a-b.

formally as "that at which all things aim" or the "mean between the extremes of excess and deficiency." Only the good person himself can give content to these formulas; only he infallibly recognizes goodness in concrete situations. The wisdom of the good person is not propositional, but is closer to what we might call "understanding." This is Plato's point as well, that knowledge of the highest things requires an inner recognition that is inseparable from our devotion to those things.⁴⁰

The theory of forms of the middle dialogues was introduced and maintained only as a hypothesis by which certain philosophical problems could be resolved or avoided.⁴¹ In the *Parmenides* Plato has shown that this hypothesis does not rest on a solid foundation but rather on a fabric of analogies and metaphors. What I believe Plato is doing in the *Theaetetus*, *Sophist*, and *Statesman* is attempting to reconstruct the theory of forms on a more solid foundation by showing how the need for such a hypothesis arises from a demonstration of the inadequacy of less radical hypotheses. The forms remain entirely in the background of the *Theaetetus*, but their aspect as universal kinds re-emerges explicitly in the *Sophist*'s doctrine of kinds, although this too continues to abstract from the valuational aspect of the forms (cf. 227a-b). That aspect will be restored as well, in the final dialogue of the trilogy, the *Statesman*, with the doctrine of "due measure."⁴² It subsequently becomes the thematic center of the *Philebus*.

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⁴⁰ Cf. Pascal's remark: "whereas in speaking of human things we say they must be known before they can be loved, . . . the saints on the contrary say in speaking of divine things that they must be loved in order to be known" ("On Geometrical Demonstration," trans. Richard Scofield, in *Pascal: The Provincial Letters, Pensées, Scientific Treatises*, vol. 33 of Great Books of the Western World [Chicago: Encyclopaedia Britannica, 1952], p. 440).

⁴¹ E.g., *Phaedo* 100b.

⁴² Cf. Dorter, "Justice and Method in the *Statesman*," in *Justice, Law and Method in Plato and Aristotle*, ed. Spiro Panagiotou (Edmonton: Academic Publishing, 1987), 105-22.

HAECCEITAS AND THE BARE PARTICULAR

WOOSUK PARK

ACCORDING TO DUNS SCOTUS, what makes a material substance an individual is a positive entity which falls within the category of substance and contracts the specific nature to this or that.¹ That entity, called *haecceitas*, together with the formal distinction, constitutes the core of Scotus' theory of individuation.² But what is

¹ John Duns Scotus, *Lectura in Librum Secundum Sententiarum*, dist. 3, q. 6, in *Opera Omnia*, ed. Balić (Rome: Typis Polyglottis Vaticanis, 1954–1982). For the translations given in this article I depend upon the following unpublished translation: John Duns Scotus, *Six Questions on Individuation from the Oxford Lectures*, Book II, Distinction 3, trans. Allan B. Wolter, from a transcription of *Duns Scoti Lectura II*, dist. 3, qq. 1–6, Vienna manuscript, cod. lat. 1449 (Nationalbibliothek), (Washington, D.C.: The Catholic University of America Press, 1981). According to Joseph Owens, Scotus treats extensively of “the nature taken just in itself” in the three parallel places where he is concerned with the problem of individuation. They are *Opus oxoniense*, II, dist. 3, qq. 1–6; *Reportata Parisiensia*, II, 12, 3–8, ed. Vivès, vol. 23, 20–41 [ed. Wadding, vol. 11.1, 323–3]; and *Quaestiones Subtillissimae in Metaphysicam Aristotelis*, ed. Vivès, vol. 7, 13, 402–26 [ed. Wadding, vol. 4, 697–710]. See J. Owens, “Common Nature: A Point of Comparison between Thomistic and Scotistic Metaphysics,” in *Inquiries into Medieval Philosophy*, ed. J. F. Ross, (Westport: Greenwood Publishing Co., 1971), 185–209. *Lectura* is Scotus' original set of notes for his lectures as a bachelor at Oxford, while *Ordinatio* is his own revised version of these notes. *Ordinatio* has been generally considered to be authentic and is usually called “*Opus oxoniense*.” But recently A. Vos has cast doubt on the authenticity of *Ordinatio*. He claims that *Lectura* is the true *Opus oxoniense* because *Ordinatio* is neither a work of Scotus nor a book written in Oxford; see A. Vos, “On the Philosophy of the Young Duns Scotus: Some Semantical and Logical Aspects,” in *Medieval Semantics and Metaphysics*, ed. E. P. Bos (Nijmegen: Ingenium Publishers, 1985), p. 198 and p. 217, n. 7. In his recent study of Scotus' theory of individuation, Wolter is heavily indebted to *Lectura*, even though he treats *Ordinatio* as authentic. I try to follow Wolter's example in this paper. See Wolter, “Scotus,” in *Individuation in Scholasticism: The Late Middle Ages and the Counter-Reformation*, ed. Jorge J. E. Gracia (München and Wien: Philosophia Verlag, forthcoming).

² In addition to Wolter's study, see T. Rudavsky's work on Scotus' theory of individuation as well as her “The Doctrine of Individuation in

haecceitas? *Haecceitas* is not definable. Nor can we be acquainted with it. Then how could we understand it? Both negatively and positively, Scotus himself tried to give an answer to this question. Before presenting his *haecceitas* theory, Scotus criticized six different types of rival theories available in his day: the position of the nominalists, the double negation theory, the theory of individuation by actual existence, the theory of individuation by quantity or other accidents, the theory of individuation by matter, and the theory attributed to Godfrey of Fontaines. In other words, he was explaining "what *haecceitas* is not" when he criticized these theories. More importantly, he tried to give us a positive characterization of *haecceitas*. Since he used "individual difference" as a synonym for "*haecceitas*," he resorted to an analogy between the specific difference and the individual difference in order to explain the notion of *haecceitas*.³ The problem is that twentieth-century ontologists may not be patient enough to study the triple analogy, which again presupposes Scotus' doctrines of the formal distinction and the ultimate difference.⁴ In order to draw their attention to Scotus' theory of individuation, one would need to discuss the following questions: How can we translate the term "*haecceitas*" into modern terminology? Is there any counterpart of *haecceitas* in contemporary ontology? For what reasons should we reintroduce *haecceitas* into the current discussion of individuation, if it has a good counterpart? Is there still anything significant left to add to our understanding of *haecceitas*?

The aim of the present paper is to provide a partial answer to these questions and thereby to revive the interest in Scotus' theory of individuation. If we are successful, ultimately we will be able to contribute to the larger project of bridging the gap between medieval

Duns Scotus," *Franziskanische Studien* 59 (1977): 320-77; (Fortsetzung), vol. 62 (1980): 62-83. For Scotus' doctrine of the formal distinction, the following two studies should be consulted: M. J. Grajewski, *The Formal Distinction of Duns Scotus* (Washington, D.C.: The Catholic University of America Press, 1944), and M. J. Jordan, "Duns Scotus on the Formal Distinction" (Ph.D. diss., Rutgers University, 1984). See also Woosuk Park, "Common Nature and *Haecceitas*," *Franziskanische Studien* 71 (1989): 188-92.

³ Dist. 3, q. 6, nn. 170-2.

⁴ See Allan B. Wolter, *The Transcendentals and Their Function in the Metaphysics of Duns Scotus* (St. Bonaventure, N.Y.: The Franciscan Institute, 1946) for a succinct account of Scotus' theory of ultimate differences.

and contemporary discussions of individuation.⁵ We will begin by outlining the basic argument of this paper.

When one searches for a contemporary ontology which might help us understand Scotus' notion of *haecceitas*, Gustav Bergmann's bare particular theory of individuation immediately suggests itself because of the close similarity between the bare particular and *haecceitas*.⁶ Indeed, some scholars have indicated that the bare particular and *haecceitas* are quite similar because (1) both have the sole function of individuation, (2) both are characterless, and (3) both are too ultimate and simple to be definable.⁷ However, there is also a totally different interpretation of *haecceitas*, which interprets *haecceitas* as an individual essence or coordinate quality. This latter interpretation is found in contemporary analytic ontology as well as in the history of modern philosophy.⁸ As will be shown,

⁵ Though it is well known that medieval scholastics were fascinated by the problem of individuation, discussions of individuation in contemporary philosophy rarely pay attention to the history of the problem. Jorge Gracia's works are a notable exception to the rule. See, for example, his *Introduction to the Problem of Individuation in the Early Middle Ages*, 2nd ed. (München and Wien: Philosophia Verlag, 1988).

⁶ For a quick survey of Bergmann's bare particular theory, one may refer to the paper "Synthetic *a priori*" in his *Logic and Reality* (Madison, Wis.: University of Wisconsin Press, 1964). Also useful are the papers collected in E. B. Allaire et al., eds., *Essays in Ontology* (Iowa City: University of Iowa Press, 1963).

⁷ J. Gracia, *Suárez on Individuation* (Milwaukee: Marquette University Press, 1982), 221-2. Also, see L. Mackay, "Singular and Universal: A Franciscan Perspective," *Franciscan Studies* 39 (1979): 130-64; L. B. McCullough, "The Early Philosophy of Leibniz on Individuation: A Study of the 'Disputatio metaphysica de principio individui' of 1663" (Ph.D. diss., The University of Texas at Austin, 1975); T. P. McTighe, "Scotus, Plato and the Ontology of the Bare X," *The Monist* 49 (1965): 588-616.

⁸ "Identity-with-Quine is an *individual essence* (individual concept, haecceity) of Quine. Let's say that a property *p* is *essential* to an object *x* iff it is not possible that *x* have its complement—equivalently, iff there is no possible world in which *x* exists but lacks *p*. Then, an essence of Quine is a property that he has essentially and is such that it is not possible that there be an object distinct from him that has it. In terms of possible worlds, an essence of Quine is a property he has in every world in which he exists, and one such that in no possible world is there an object distinct from him that has it. The view that proper names express individual essences has impressive historical credentials: it goes back to Scotus and, before him, to Boethius, . . ."; Alvin Plantinga, "The Boethian Compromise," *American Philosophical Quarterly* 15, no. 2 (April 1978): 132. "Historically, philosophers have used individual essences to individuate objects in space and time (for example Duns Scotus), and recently they have been

Bergmann also understands *haecceitas* as an individual essence, a coordinate quality, or both. I believe that such a misinterpretation of *haecceitas* is a stumbling block for any deeper comparative study of *haecceitas* ontology and the bare particular ontology. The major thesis of this paper, then, is that at least from Scotus' point of view, *haecceitas* cannot be understood as an individual essence or a coordinate quality.

Once the misinterpretation of *haecceitas* as an individual essence or a coordinate quality is corrected, the view which directs our attention to the similarities between *haecceitas* and the bare particular can be appreciated much better. Unfortunately, supporters of this view do not provide us with extensive comparisons of *haecceitas* and the bare particular, and we are left without precise knowledge as to the extent of the similarity between *haecceitas* and the bare particular. Indeed, it is not clear whether there is any significant difference between them. Apparently there are some differences that can be detected even in cursory investigation, and I shall point out some of them in the course of this paper. However, it is not my intention to give a complete comparison of *haecceitas* and the bare particular. I believe that the apparent differences between them are rooted in the structural differences between Scotus' and Bergmann's logic and metaphysics, the exposition of which is obviously beyond the scope of this paper. A secondary contribution of this paper will be the identification of some of the apparent differences between *haecceitas* and the bare particular.

My strategy is as follows. In section I, I shall report in what context and in what way Bergmann interprets *haecceitas* as an individual essence, a coordinate quality, or both. In section II, I shall show that, contrary to Bergmann's view, *haecceitas* cannot be an individual essence or coordinate quality or both. To carry out that task, I shall turn to Scotus' own writings on individuation. In section III, I shall point out some apparent differences between *haec-*

used as principles of individuation for events"; Michael Losonsky, "Individual Essence," *American Philosophical Quarterly* 24, no. 3 (July 1987): 253. "The word 'haecceity' has traditionally been used to mean the same as 'individual essence' or 'essence of an individual thing'"; Roderick M. Chisholm, "Possibility without Haecceity," in *Midwest Studies in Philosophy XI: Studies in Essentialism*, ed. Peter A. French et al. (Minneapolis: University of Minnesota Press, 1986), 160.

ceitas and the bare particular. Finally I shall also try to point out the direction where the explanation of those differences can be found.

I

In several places, Bergmann discusses Scotus' *haecceitas*. We may divide these discussions into two groups according to Bergmann's style or method of approach. In some places, where Bergmann deals with what he believes to be Scotus' theory of individuation as a rival to his bare particular theory, he feels compelled to give an interpretation of *haecceitas*.⁹ We may say that in these cases Bergmann treats *haecceitas* for structural or systematic reasons. In other places, where he shows a quasi-historical interest in individuation, he also has to interpret *haecceitas* because Scotus' theory is one of the most influential theories of individuation in the history of philosophy.¹⁰ We may say that in these cases Bergmann treats *haecceitas* for historical reasons.

Now we can observe an interesting fact. Bergmann interprets *haecceitas* as a coordinate quality when he treats it for structural or systematic reasons. On the other hand, he interprets *haecceitas* as an individual essence when he treats it for historical reasons. We shall examine both interpretations shortly.

Even more important than confirming that Bergmann in some places interprets *haecceitas* as an individual essence and in others as a coordinate quality is understanding how these two interpretations are related. Are they incompatible? Is there any inferential relation between them? Are they independent? With these questions in mind I shall proceed to examine each of the two interpretations.

(A) *Haecceitas as an Individual Essence*. Bergmann does not pretend to write a scholarly history, but he confesses that he would not know how to philosophize without the history that lives in him.¹¹

⁹ For example, "Synthetic *a priori*," 287.

¹⁰ For example, "Some Remarks on the Philosophy of Malebranche," in his *Meaning and Existence* (Madison, Wis.: University of Wisconsin Press, 1967), 191.

¹¹ Bergmann, "Intentionality," in *Meaning and Existence*, 3. Also, he thinks of his own style as analytic and quasi-historical; see "Russell's Examination of Leibniz Examined," in *Meaning and Existence*, 155.

So, while he never attempts to write a history of the problem of individuation, he gives some hints about how he appreciates the theories of individuation which have been influential in the history of philosophy.

In his critical remarks on Russell's interpretation of Leibniz, Bergmann gives us a one-paragraph survey of the previous theories of individuation. Since the purpose of the paragraph is merely to indicate various medieval aspects of Leibniz's view, we cannot complain that it is too short. Bergmann enumerates only four solutions for the problem of individuation. They are Aristotle's, Aquinas's, Scotus', and Leibniz's. Following the traditional interpretation, Bergmann understands that prime matter is the Aristotelian principle of individuation. He calls this solution the hylomorphic way. According to Bergmann, the second solution is the existential way of Aquinas. In this second way,

generic natures or essences, composed, except in the case of spirits, of both form and matter, are by divine acts endowed with "being."¹²

Though old, such an interpretation is by no means the standard interpretation of Aquinas. Traditionally, Aquinas has been thought to claim a theory of individuation by "designated matter."¹³ But if Bergmann had understood designated matter as Aquinas's principle of individuation, he would have treated it as a variant of Aristotle's view or a type of spatio-temporal theory of individuation.

The third solution to the problem of individuation is a theory

¹² Bergmann, "Russell's Examination of Leibniz Examined," 167.

¹³ Since Aquinas explicitly defended in several places the view that designated matter is the principle of individuation, virtually everybody concedes that Aquinas had such a theory. What is troublesome is that it is not easy to understand what he meant by the term "designated matter." On account of the obscurity of this term there has been a continuing controversy concerning its interpretation. The first interpretation is that of orthodox Thomists. According to it, "designated matter" means "matter under determinate dimensions." This is generally conceded to be Aquinas's view in his later works. See Gracia, *Suárez on Individuation*, 17; *Summa Theologiae* I, q. 3, a. 3, *responsio*; *Summa Contra Gentiles* IV, 65. The second interpretation understands designated matter as "matter under indeterminate dimensions" and finds its textual support in some of Aquinas's early writings, such as *Commentary on Boethius' De trinitate*, q. 4, a. 2. Among the commentators of Aquinas who give a role to existence in individuation is Joseph Owens. See his "Thomas Aquinas on Individuation," in *Individuation in Scholasticism*.

Bergmann attributes to Scotus. Bergmann calls it "the essentialist way." As Bergmann understands it, in the Scotist way

there are individual natures or *haecceitates*; I use, as Leibniz occasionally did, the term for the whole individual nature.¹⁴

Though short, this sentence is extremely clear about how Bergmann understands *haecceitas*: *haecceitas* consists of all the essential and accidental natures a singular thing has. Thus, the singular thing is identified with the set of all characteristics it has. In other words, the set of characteristics uniquely defines the singular thing. As Bergmann points out, such a set of characteristics has been thought to be the Leibnizian "individual essence."

A similar attempt to enumerate the influential theories of individuation in the history of philosophy is found in Bergmann's paper, "Some Remarks on the Philosophy of Malebranche."¹⁵ Here Bergmann is interested in the ontological grounds of the agreement and the difference between two cubes which are alike in all nonrelational respects.¹⁶ Bergmann counts realism as one possible answer to the question of how the agreement and the difference are grounded. Since the problem of individuation plays a role in realist theories, Bergmann's taxonomy of classical realism may also be viewed as a taxonomy of theories of individuation.¹⁷

Again, Bergmann enumerates four theories. Instead of giving an independent status to Leibniz's theory, however, Bergmann introduces a new candidate, "roughly, moderate realism." Also, Bergmann gives us further hints concerning how he views Aristotle's and Aquinas's solutions. But as far as Scotus' theory is concerned we do not get any new information:

One variant assumes that no two situations agree in all universals. That makes it possible to solve the problem of individuation without recourse to particulars. This is what Scotus does.¹⁸

Though Bergmann does not explicitly use expressions such as "individual essence" or "individual nature," this passage seems to

¹⁴ Bergmann, "Russell's Examination of Leibniz Examined," 167.

¹⁵ In *Meaning and Existence*, 189–204.

¹⁶ "Some Remarks on the Philosophy of Malebranche," 190–1.

¹⁷ *Ibid.*, 191.

¹⁸ *Ibid.*, 191.

support the view that Bergmann sometimes interprets *haecceitas* as an individual essence. There are no two singular things which are alike in all natures because each of them has a unique set of characteristics, that is, *haecceitas*. There is no simple thing which is not a characteristic in such a *haecceitas*. Thus, there is no individual. This seems to be Bergmann's line of thought.

(B) *Haecceitas as a Coordinate Quality*. When Bergmann's interest is primarily structural, however, and he presents his own theory of individuation in terms of the bare particular, he usually contrasts it with the theory of individuation by a coordinate quality.¹⁹ Moreover, Bergmann views the theory of individuation by a coordinate quality as the only possible way to handle the problem of individuation open to "Scotist ontologies."²⁰ Scotist ontologies in Bergmann's sense are ontologies in which all simple things are characters.²¹ Those ontologies which in addition contain some individuals are called "nonscotist." In most nonscotist ontologies, individuals have natures. Bergmann's ontology is a unique kind of nonscotist ontology because his bare particular is an individual without a nature; it is "a mere individuator" and "cannot be recognized as such."²² I shall refer to a few instances where Bergmann identifies the theory of individuation by a coordinate quality with the Scotistic solution.

Bergmann approaches the problem of individuation by raising the question of how to account for the difference of two situations that are alike in all nonrelational characteristics. For example, he writes:

Take now two green spots. There is identity as well as diversity to be accounted for. The two spots are identical in being both green. The universal accounts for the identity. They are different in being two, not one. The ontological assay must account for that difference. In traditional words, all philosophers embracing universals are faced with the problem of *individuation*.²³

Bergmann hastens to add that "basically, there are two ways of solving [the problem]."²⁴ The first way is his own bare particular theory, while the second is coordinate qualities.

¹⁹ "Synthetic *a priori*," 287.

²⁰ Ibid.

²¹ Ibid., 277.

²² Ibid.

²³ "The Ontology of G. E. Moore," in *Logic and Reality*, 159–60.

²⁴ Ibid.

How does Bergmann understand this latter way of solving the problem of individuation? In his paper "Synthetic *a priori*," Bergmann writes:

Remember those peculiar spatial properties I called coordinate qualities, hereness, thereness, and so on. The Scotists need them to solve the problem of individuation. That is why I also called them *haecceitas*. If there are such properties then they are simple; or at least some of them are simple. Are there such properties? Depending on whether your answer is affirmative or negative you are an *absolutist* or a *relativist*.²⁵

It is clear from this passage that Bergmann identifies Scotus' *haecceitas* with a coordinate quality. *Haecceitas* is, so to speak, a spatial property, something like hereness or thereness.

Elsewhere Bergmann explains further how the coordinate quality works as an individuator:

All simples are universals. The basic tie is *inclusion*. A simple may be included in a complex. "Two" complexes are one if and only if they include the same simples. Individuation is achieved by a special class of nonrelational spatial and temporal universals. Call them here, there, now, then, and so on. One of the two spots, for instance, is a complex including green and there, the other, one including green and here. Space and time, one sees, are assayed as being in essence nonrelational. Simples and complexes are of the same type. More poignantly, there are no types. Accordingly, if α includes β and β includes γ then α includes γ . This gambit cannot but remind one of Scotus', with the special class of space-time properties corresponding to his *haecceitates*.²⁶

According to the explanation of the quoted passage, ordinary singular things are complexes. So, when two complexes share all simples, that is, universals, the only way to account for their being two and not one is to resort to spatio-temporal coordinates. And such a coordinate quality is nothing but Scotus' *haecceitas*, according to Bergmann.

(C) *Individual Essence or Coordinate Quality?* I already pointed out that it would be important to understand the relationship between Bergmann's interpretation of *haecceitas* as an individual essence and his interpretation of *haecceitas* as a coordinate quality. As we saw, sometimes Bergmann explicitly identifies *haecceitas* as a whole nature of a singular thing. On the other hand, at other

²⁵ "Synthetic *a priori*," 287.

²⁶ "The Ontology of G. E. Moore," 160.

times he clearly views *haecceitas* as a spatio-temporal quality. Is there any conflict between these two interpretations? If not, is there any inferential relation between them?

It seems obvious that the answer must be sought in Bergmann's dichotomy of all ontologies: Scotist vs. nonscotist. As was discussed, by "Scotist ontologies" Bergmann means those in which all simple things are characters, while those ontologies that contain some individuals are nonscotist.²⁷ Here, any kind of individual is counted as individual. This means that not only the traditional material substance with a nature but also Bergmann's bare particular, devoid of a nature, are considered perfect examples of individual. Thus, according to Bergmann's classification of ontologies, (1) there is no material substance which is an individual in Scotist ontologies, and (2) *haecceitas* in Scotist ontologies cannot be an individual because Scotist ontologies have no individuals. But how could there be no individuals of any kind in a Scotist ontology? The answer to this question is not so difficult if one interprets *haecceitas* as an individual essence or a coordinate quality. If *haecceitas* is an individual essence, it is not simple but complex. But, according to Bergmann's usage of the term, "a thing is simple if and only if it has no constituent which is a thing,"²⁸ and "individuals are simple."²⁹ Since *haecceitas* understood as an individual essence is a complex, which has things as constituents, it cannot be an individual.³⁰ If *haecceitas* is a coordinate quality, it is a special universal. So, it is not an individual. Thus, whether *haecceitas* be an individual essence or a coordinate quality, there is no individual in Scotist ontologies.

If there is no individual in Scotist ontologies, one might think that Bergmann's dichotomy of ontologies is not helpful in determining the relationship between his two interpretations of *haecceitas*. But, according to the criterion for dividing ontologies into two groups—whether or not the ontology contains individuals—in any Scotist ontologies there should at least be individual essences

²⁷ "Synthetic *a priori*," 277.

²⁸ Ibid., 289.

²⁹ Ibid.

³⁰ Martin Tweedale pointed out that two questions seem to be confused by Bergmann: (1) Does a given ontology admit of individuals?; (2) Does the ontology admit individuals as basic and reducible? I believe that Tweedale is right. But for my present purpose, I have to stick to Bergmann's own usage of terms.

even if *haecceitas* is not an individual essence but a coordinate quality. Perhaps it is a sound requirement that every ontology should be able to explain the ontological status of ordinary singular things. As traditional substance ontologies and Bergmann's bare particular theory provide their own explanation of the ontological ground of ordinary things, any Scotist ontology in Bergmann's sense should provide us with an explanation. This line of reasoning indicates that Bergmann distinguishes Scotist ontologies from traditional substance ontologies where the distinction between substantial and accidental characteristics is important. If there were such a distinction in Scotist ontologies, there would be no difference between Scotist ontologies and traditional substance ontologies because even Scotist ontologies would have individuals, that is, substances.

Further, an individual essence should contain spatio-temporal qualities because the individual essence is the whole nature a singular thing has. In other words, since there is no distinction between substantial and accidental characteristics in Scotist ontologies in Bergmann's sense, if an individual essence is a whole nature, that is, the entire set of all characteristics, of a singular thing, it must contain spatio-temporal qualities too. Now it should be clear that a Scotist ontology should have both an individual essence and a coordinate quality. The individual essence is a necessary condition for a Scotist ontology in Bergmann's sense. Coordinate qualities are also needed in any Scotist ontology because there is a need to solve the problem of individuation. Thus, there should not be any conflict between the fact that it also has individual essences and the fact that a Scotist ontology has coordinate qualities. What is problematic is which one should be called *haecceitas*. As long as an individual essence contains spatio-temporal qualities, it itself can be an individuator. Perhaps for this reason Bergmann sometimes interprets *haecceitas*, which is the principle of individuation for Scotus, as an individual essence. But if we concentrate on the function of individuation, and believe that a spatio-temporal quality does individuate, then it is tempting to interpret *haecceitas* as a coordinate quality. Perhaps that is the reason why Bergmann sometimes gives us such an interpretation. One may think that as long as any Scotist ontology contains both an individual essence and coordinate qualities, it does not really matter which one corresponds to Scotus' *haecceitas*. Only if we understand the situation this way is Bergmann's attitude toward the two interpretations justifiable. What is rather

interesting and important is to ask what role the individual essence and the coordinate quality would play in individuation in what Bergmann thought to be Scotus' ontology.

II

In the last section, we saw that Bergmann interprets *haecceitas* as an individual essence or a coordinate quality. In order to show that his interpretation is wrong, then, it would be enough for us to establish that for Scotus *haecceitas* is neither an individual essence nor a coordinate quality. Of course, we saw that it is very important to understand the different roles assigned to the individual essence and the coordinate quality in Bergmann's interpretation of Scotus' theory of individuation. We shall come back to this point later. However, it should be obvious by now that no matter what roles are allocated to the individual essence and the coordinate quality, if *haecceitas* is neither one nor the other, then we have to say that Bergmann's interpretation of *haecceitas* is wrong.

It is not so difficult to see that *haecceitas* cannot be an individual essence. In his treatise on the problem of individuation, Scotus already rejected a nominalistic theory according to which a material substance is of its nature singular and individual.³¹ If a theory of individuation by individual essences is such a theory, as I believe it to be, it would be absurd to interpret *haecceitas* as an individual essence.

Indeed, the nominalist theory of individuation was the first of the six theories identified and rejected by Scotus in his treatise on individuation. Scotus had good reason to criticize the nominalist theory before anything else, for if a material substance is of its very nature singular and individual, as nominalists believe, there would be no problem of individuation.³² But Scotus shows that the problem of individuation is a genuine problem for which we should supply an answer, and that amounts to a rejection of the nominalist position. Though an interesting task, it is both unnecessary and impossible to discuss here how Scotus understands and reformulates

³¹ Dist. 3, q. 1.

³² See Gracia, *Introduction to the Problem of Individuation*, 40-1.

the nominalist position and arguments in favor of it.³³ Nor is it necessary or possible to discuss Scotus' ingenious arguments against the nominalist theory.³⁴

Further, Scotus' criticism of the nominalist view amounts to a major part of the first argument in his two arguments for postulating *haecceitas*.³⁵ In other words, if an individual essence were the principle of individuation, and as a consequence the material substance were of its nature this or that individual, then there would be no need to postulate *haecceitas*. Thus, *haecceitas* cannot be an individual essence for Scotus.

But, if Scotus' rejection of the nominalist theory does not entail that there are no individual essences in the modern sense, we need another reason that would show that *haecceitas* cannot be an individual essence. For this purpose, I would like to discuss briefly Scotus' triple analogy of an individual difference (that is, *haecceitas*) and a specific difference. In both *Lectura* and *Ordinatio*, Scotus compared an individual and a species in terms of their relationship to what is below each, to what is above each, and to what is on a par with each.³⁶

³³ It is not without value to ask who Scotus' target was in his criticism of the nominalist position, though the answer will be the result of guesswork. Wolter agrees with the editors of *Lectura* that "Scotus may have had in mind Roger Marston or Peter de Falco"; see Wolter, "Scotus." For the purposes of this paper, we might view Scotus' presentation of the nominalist position as a result of his own reconstruction, since what Scotus needed was a position that might be a stumbling block for the problem of individuation as a whole and not the ingenious arguments of an actual nominalist. See dist. 3, q. 1, n. 6 for Scotus' presentation of the nominalist position.

³⁴ Scotus had two arguments against the nominalist position. His first argument is in the form of a *reductio ad absurdum* whose single premise is that the object of the intellect is prior by nature to the act by which it is understood. The second argument is a syllogism which aims to show that there is a real unity other than numerical unity. Scotus needed to introduce sub-arguments to establish the premises. It is interesting to note that both of Scotus' arguments against the nominalist position ultimately are laying the ground for his theory of the common nature.

³⁵ Scotus proposed two arguments which jointly demonstrate that there must be something positive in the category of substance that individuates the specific nature. His first argument aims to show that something positive is necessary for the individuation of the specific nature, thereby rejecting the nominalist position; dist. 3, q. 6, n. 166.

³⁶ Dist. 3, q. 6, nn. 170-2.

First, Scotus tries to compare the individual difference and the specific difference in terms of what can fall under each of them.³⁷ He observes that the specific difference is the ultimate reason why the nature has its own unity and indivisibility. Unlike a genus, the species cannot be divided into several specific natures. Analogously, the individual difference is that by which an individual is not divisible into further individuals of the same sort. But there is a difference between the individual difference and the specific difference. While a specific difference excludes division of the species into parts of another nature, it does not exclude the possibility of division into those individuals of the same nature. On the other hand, the individual difference even excludes division into further individuals of the same sort. In the case of the individual, there is a certain entity "from which the notion of the individual difference is derived, something to which it is simply repugnant to be divided."³⁸ This individual entity has a unity proper to itself, singularity. That unity is a maximal unity and it is greater than the generic or the specific unity.

Secondly, Scotus compared the specific difference and the individual difference in terms of what is above each.³⁹ The reality of the generic nature is determinable and able to be contracted through the reality of the specific difference. Likewise, the specific nature is determinable and able to be contracted through the reality from which the individual difference is derived. Here, Scotus is using the term "reality" as a synonym of "formality." Realities or formalities are distinguished formally. In fact, Scotus is fully exploiting his notion of a formal distinction in order to explain his second analogy:

As there are diverse formal perfections or formal entities, then, in one and the same thing (such as whiteness) from which a generic intention can be derived (such as the intention of color), and another formal entity from which the intention of the difference (white) is derived—as we said in Bk. I [*Lectura*, d. 3, nn. 121–22; XVI, 270 ff.]—so too there is a formally distinct entity from which the ultimate

³⁷ Dist. 3, q. 6, n. 170.

³⁸ Ibid.: "a qua . . . accipitur ratio differentiae individualis, cui omnino repugnat dividi."

³⁹ Ibid., n. 171.

individual difference is derived, one which is completely a "this," to which any sort of division is abhorrent.⁴⁰

What Scotus wants to say in this passage is clear enough. In a species, we can distinguish between the formality of its genus and the formality of its specific difference. Likewise, in one and the same individual, we can distinguish between the formality of the species to which the individual belongs and the formality of the individual difference.⁴¹

Finally, Scotus compared the specific difference with the individual difference in terms of what is on a par with each. Here Scotus wanted to know if there are any similarities and dissimilarities between the way in which a specific difference makes the species different from other species in the same genus and the way in which an individual difference individuates an individual differently from other individuals in the same species. This third analogy is extremely difficult to understand. For my present purpose it is not necessary to explain it fully, so I will just sketch what Scotus tries to achieve by it. Scotus' point is that only a certain kind of specific difference is similar to individual differences. He distinguished between the specific differences which are not simply simple and the specific differences which are derived from ultimate simply simple differences. And, according to him, the specific differences of the first sort can have something in common predicated of them *in quid*, while the specific differences of the second sort cannot.⁴²

The lesson from this brief report of Scotus' triple analogy between the specific difference and the individual difference becomes clearer if we consider the possible consequences of substituting "individual essence" for "individual difference" in the analogy. In the

⁴⁰ Dist. 3, q. 6, n. 171: "Unde sicut in eadem re sunt diversae perfectiones formales sive entitates formales (ut in albedine), a quarum una accipitur intentio generis (ut intentio coloris), et alia entitas formalis a qua accipitur intentio differentiae (albedinis), sicut dictum est in I,—sic est entitas positiva in eadem re a qua accipitur differentia ultima individualis, quae est omnino haec cui repugnat omnimoda divisio."

⁴¹ See my "Common Nature and *Haecceitas*."

⁴² Dist. 3, q. 6, n. 172; *Lectura*, I, dist. 3, pars. 1, q. 2, n. 122. See Wolter, *The Transcendentals and Their Function in the Metaphysics of Duns Scotus*, pp. 79–98, for an excellent account of *in quid* and *in quale* predication.

first way, one would have to say that "the individual essence even excludes division into further individuals of the same sort." This is indeed the absurdity to which any bundle theory of individuation leads, for there is in principle no reason to preclude the possibility of two instances of the same set of characteristics. In the second way, one would have to say that the specific nature is determinable and able to be contracted through the formality of the individual essence. But the individual essence must be a determinate rather than a determiner.⁴³ In the third way, we would have to say that any two individual essences are "primarily diverse differences." As long as they share at least one characteristic, however, individual essences cannot be ultimately different. Thus, Scotus' *haecceitas* (individual difference) cannot be an individual essence.

It is also not difficult to show that *haecceitas* cannot be a coordinate quality. A coordinate quality is an accidental feature of an individual for Scotus and for other scholastics in general.⁴⁴ But, in his treatise on individuation, Scotus explicitly rejected any kind of theory of individuation that resorted to accidents.⁴⁵ In the fourth question of his treatise on individuation, in which Scotus refutes the theory of individuation by quantity, he also refutes other accidental theories of individuation. Since quantity is merely an example of accidental characteristics, the criticisms of accidental theories of individuation can be applied to the theory of individuation by quantity. Indeed, among the four ways of refuting the theory of individuation by quantity, only one of them is especially devised for rejecting that theory. Although all four ways of rejecting accidental theories of individuation are interesting, it is neither necessary nor possible for me to discuss them here. What is important for my present purpose is to note that the coordinate quality brought up by Bergmann is nothing but an accidental characteristic. From this we can see that at least Scotus did not interpret *haecceitas* as an accident.

Further, Scotus' criticism of the accidental theories of individuation amounts to a part of his second argument for postulating

⁴³ Here I am indebted to Martin Tweedale.

⁴⁴ See Gracia, *Introduction to the Problem of Individuation*, 40-1.

⁴⁵ Dist. 3, q. 4, n. 95.

haecceitas.⁴⁶ If *haecceitas* were a coordinate quality, Scotus would be contradicting himself. Thus, *haecceitas* cannot be a coordinate quality for Scotus, as long as a coordinate quality is interpreted as an accidental characteristic of an individual.

So far, it has been demonstrated that for Scotus *haecceitas* cannot be either an individual essence or a coordinate quality. Bergmann's interpretation of *haecceitas* therefore turns out to be wrong. Interestingly, however, we can also show in a different way that Bergmann's interpretation of *haecceitas* as an individual essence and/or a coordinate quality is wrong.

Immediately before presenting his theory of *haecceitas*, Scotus criticized a theory created by a combination of a nominalist view and the accidental theory of individuation.⁴⁷ I believe that this theory attributed to Godfrey of Fontaines is quite similar to the theory of individuation by *haecceitas* as an individual essence and/or a coordinate quality in important respects. So, if it is the case that these theories are similar, Scotus seems to guard against the interpretation of *haecceitas* as an individual essence and/or a coordinate quality. Scotus' *haecceitas* theory of individuation cannot be the theory which exploits the combined force of an individual essence and a coordinate quality. Needless to say, *haecceitas* cannot be an individual essence and/or a coordinate quality.

At this point we might ask why Scotus deals with Godfrey's theory immediately before his own theory of individuation instead of criticizing it in a separate question. It is my conjecture that Scotus does so in order to guard against the possible misunderstanding which confuses his own theory with that of Godfrey. Why was such a need felt by Scotus?

The term "*haecceitas*" itself may be the source of the misunderstanding because it is ambiguous. By the "thisness" of the human individual Socrates, for example, some might understand the entire set of characteristics Socrates has, while others might understand a positive entity in the category of substance which

⁴⁶ As mentioned in n. 35, Scotus had two arguments for postulating *haecceitas*. The aim of the second argument is to show that the something needed positively is neither existence nor accidents nor matter, and thus that it must belong to the category of substance; dist. 3, q. 4, n. 167.

⁴⁷ Dist. 3, q. 6, nn. 146-63.

contracts a common nature, like humanity, to this, like Socrates. Furthermore, even the coined term "Socrateity" or "Socratesness" has been used ambiguously.⁴⁸

But that could not be the whole story. The ambiguity of the term "*haecceitas*" itself cannot explain the particular misunderstanding of Scotus' theory as a combination of the nominalist view and an accidental theory of individuation in both the Middle Ages and the twentieth century. Fortunately, we can understand the structural reason for the origin of the misunderstanding as follows. Roughly speaking, the two components of both Godfrey's theory and Bergmann's theory correspond to two of the most salient problems of individuation: (1) the problem of the principle of indivisibility (or incommunicability) and (2) the problem of distinction (or numerical difference). The nominalist view component answers the problem of the principle of incommunicability. The other component, the accidental theory of individuation (the theory of individuation by quantity in Godfrey and the theory of individuation by a coordinate quality ascribed to Scotus by Bergmann), answers the problem of the principle of distinction or numerical difference.

The difference between Godfrey and Bergmann is this. Nobody outside the scholastic tradition in the twentieth century discusses the problem of individuation in terms of the common nature. Thus, it is not clear that Bergmann appreciates the problem of the principle of incommunicability as distinct from the problem of the numerical difference between individuals of the same kind. But we should note that, even though Bergmann usually formulates the problem of individuation as if it were primarily the problem of the principle of numerical difference, he is not satisfied by the sufficient condition of numerical difference. He probes for what is the ontological ground of numerical difference. Though Bergmann no longer formulates the problem of individuation in terms of the common nature,

⁴⁸ For example, let us compare the following two different usages of "Socrateity":

What he [Scotus] thought was that we can distinguish in Socrates his 'Socratesness' from his human nature. (Copleston, *Medieval Philosophy*, 109).

We have also learned that *id quos* are not individual except for those which represent the total property of an *id quod*, such as Platonity or Socrateity. (Gracia, *Introduction to the Problem of Individuation*, 159).

he seems to touch upon the problem of the principle of incommunicability. In other words, Bergmann seems to raise the question of what makes this individual this in addition to the problem of explaining the numerical difference between individuals of the same kind.

As was discussed elsewhere, Scotus treats the problem of the principle of incommunicability as basic and that of the principle of numerical difference as derivative.⁴⁹ So, he can answer the two problems by simply introducing *haecceitas*. It is not clear how Godfrey and Bergmann's Scotus understand the relationship between the two problems of individuation. Be that as it may, Godfrey and Bergmann's Scotus solve the problem of the principle of incommunicability by saying that a material substance is incommunicable of its nature or by its individual essence this. But that move leaves the problem of numerical difference unanswered. Suppose that there are two spots. Both are red and round, and they have no other characteristics. How could we explain the fact that there are two numerically different individuals? Godfrey and Bergmann's Scotus have to resort to some accidental characteristics to answer this question.

III

Since it turns out that Bergmann's interpretation of *haecceitas* as an individual essence or a coordinate quality is wrong, we can return to the project of comparing *haecceitas* and the bare particular. Let me first go over their similarities again. As was reported, some scholars find similarities between them in the following respects:⁵⁰ First, they have no characteristics of themselves except for the function of individuating. Second, they are so ultimate and simple that we cannot define them or analyze them into further principles. Third, it seems likely that there is no other support for positing them besides purely dialectical arguments.

However, there are also apparent differences between *haecceitas*

⁴⁹ See Woosuk Park, "The Problem of Individuation for Scotus: A Principle of Indivisibility or a Principle of Distinction?" *Franciscan Studies* 48, Annual XXVI (1988): 105-23.

⁵⁰ Gracia, *Suárez on Individuation*, 221-2.

and the bare particular. Let me first present these differences informally. Then I shall present them more rigorously using Bergmann's own terms.

The first difference is this. The bare particular seems to be momentary in the sense that it exists only in one instance of time.⁵¹ On the other hand, a material substance individuated by *haecceitas* is a continuant. So, as long as *haecceitas* secures the identity of a substance through change, *haecceitas* seems to be a continuant as well.

The second difference is this. In Bergmann's ontology, the bare particular is an individual. Though the bare particular itself is not qualified, it is the possessor of characteristics. On the other hand, it is hard to call *haecceitas* an individual because it is not a substance but merely a principle of individuation of substance. In other words, it is not *haecceitas* but a substance that possesses characteristics.

In section 6, "Substance," of his book *Realism*, Bergmann gives us pertinent information to clarify these apparent differences. He distinguishes between several senses of the term "substance," from substance 1 through substance 5.⁵² Substances 1 are individuators, according to Bergmann. When a substance 1 individuates an object, it is "in" the object.⁵³ If we expand such a use of "substance" a little bit, we can have substances 2, which are supporters of their qualities.⁵⁴ Bergmann calls substance 3 "the minimal object" and defines it as follows: "The substance 3 or the minimal object in an object is an object α such that (1) α is 'in' β , and (2) no entity 'in' β , except itself, is an object."⁵⁵ Bergmann calls entities which do the three functions thus far introduced "*momentary substances*."⁵⁶ And, he calls "things in time which are the same at two time points and throughout the interval between them" *continuants*.⁵⁷ Then, Bergmann introduces substance 4, which is a continuant "in" the object. Since it is a continuant, it establishes the object's identity through time.⁵⁸ Finally, there is substance 5. It is an *agent*, a

⁵¹ Bergmann, *Realism*, 120-1.

⁵² Ibid., 117-24.

⁵³ Ibid., 117.

⁵⁴ Ibid.

⁵⁵ Ibid., 118.

⁵⁶ Ibid., 114.

⁵⁷ Ibid., 113.

⁵⁸ Ibid., 121.

source of activity, in an object.⁵⁹ A discussion of substance 5 is not needed for my purpose here.

Now, we can inquire whether *haecceitas* and the bare particular may be called "substances" in each of these different senses. First of all, both *haecceitas* and the bare particular are claimed to be individuators. They are substances 1. Both *haecceitas* and the bare particular also seem to satisfy the condition for being substance 3: They are minimal objects. However, there is some doubt concerning the sense of "substance 2." The bare particular is always presented as a supporter of its qualities. That is the reason why some people explain the notion of bare particular by using metaphors of a pincushion supporting pins or a peg by which clothes are hung together.⁶⁰ It is tempting to view *haecceitas* as a supporter of qualities that belong to an individual which it individuates. Without *haecceitas*, those qualities cannot hang together. The metaphor of peg or pincushion may be used for presenting the notion of *haecceitas* for that reason. But the problem is that something more seems to be implied by saying that the bare particular is a supporter of its qualities. As pointed out as the second intuitive difference between *haecceitas* and the bare particular, unlike *haecceitas*, bare particulars are claimed to *possess* those qualities. The difference between supporter and possessor may be made clearer if we consider the distinction between subject and predicate as a grammatical counterpart of the distinction between substance and attribute. Let us take a singular proposition, "Socrates is white." Bergmann would say that a bare particular of "Socrates" at a specific point in time possesses a quality, "white." But it would be odd if we said that the *haecceitas* of Socrates is white or that the *haecceitas* of Socrates possesses the quality "white." It is not the *haecceitas* of Socrates but the qualified individual Socrates that is white or is a supporter and possessor of the quality "white," at least from Scotus' point of view. Unlike the bare particular, *haecceitas* cannot be a substance 2 unless the metaphor of supporter is more clearly elaborated.

Next, let us examine the first intuitive difference between *haecceitas* and the bare particular. Interestingly, as reported, Bergmann

⁵⁹ *Realism*, 123.

⁶⁰ B. Aune, *Metaphysics: The Elements* (Minneapolis: University of Minnesota Press, 1985), 46.

calls substance 1, substance 2, and substance 3 “*momentary substances*.”⁶¹ Bare particulars are momentary substances because all and only those three limited jobs are assigned to them by Bergmann.⁶² On the other hand, it is obvious that Bergmann would treat *haecceitas*—not in his own interpretation but in the interpretation which counts *haecceitas* as something positive in the category of substance and contracts the specific nature to this or that—as nonmomentary, for *haecceitas* satisfies the condition for being a substance 4. It is a continuant in the object. It provides us with a principle of identity between the same object at different points in time.

From Bergmann’s point of view, then, there are some obvious differences between *haecceitas* and the bare particular. Perhaps Bergmann would think that Scotus unnecessarily gives the double role, that is, the role of the principle of individuation and that of the principle of identity through change, to *haecceitas*. Also, Bergmann would say that Scotus could not set himself free from the spell of a substance ontology.

How about Scotus? What would he say about Bergmann’s bare particular? If we suppose that the bare particular is not only the principle of individuation but also the possessor of the qualities, as Bergmann claims, then there would be no separate role allotted to a substance. No doubt Scotus would complain that Bergmann unnecessarily gives the bare particular a double role, that is, the role of the principle of individuation and that of the possessor or the supporter of qualities.

Clearly, there are differences between *haecceitas* and the bare particular, whether one looks at *haecceitas* from Scotus’ point of view or from Bergmann’s. Naturally enough, our next project would have to be to weigh the relative strengths of the *haecceitas* theory and the bare particular theory. But such a task is beyond the scope of this investigation.

Let me finish, then, by pointing out some possible sources of the differences between Bergmann and Scotus. First, one might start the search for the ultimate difference between Scotus and Bergmann in the fact that they work with different logics and the-

⁶¹ *Realism*, 114.

⁶² *Ibid.*, 120.

ories of predication. I believe that such a project has some promise, although any suggestion in that direction is beyond the scope of this paper.⁶³ Second, as we discussed in the last section, Scotus and Bergmann seem to address different problems of individuation. We said that in Scotus the common nature plays an indispensable role in formulating the problem of individuation. On the other hand, as Bergmann's principle of exemplification makes clear, there is no place for a common nature in Bergmann's ontology. Though Bergmann does not just want to solve the problem of the principle of numerical difference between individuals of the same kind, and does seek the ontological ground of numerical difference, his problem cannot be the problem of the principle of incommunicability whose formulation presupposes the common nature. Perhaps *haecceitas* without the common nature is inconceivable. But this difference should not be interpreted as a demonstration of the incomparability of *haecceitas* and the bare particular. Rather, it reminds us of the gap between medieval and contemporary treatments of the problem of individuation. The only hope of bridging this gap rests on further comparative studies.

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⁶³ See my "Scotus, Frege, and Bergmann," *The Modern Schoolman* 67 (May 1990): 259-73.

BOOKS RECEIVED

SUMMARIES AND COMMENTS*

MARK M. HURLEY AND STAFF

ACKERMAN, Robert J. *Wittgenstein's City*. Amherst: University of Massachusetts Press, 1988. xiii + 267 pp. Cloth, \$25.00; paper, \$12.95—The title of this book is taken from one of Wittgenstein's own images. In *Philosophical Investigations* §18, Wittgenstein writes: "Our language can be seen as an ancient city: a maze of little streets and squares, of old and new houses, and of houses with additions from various periods." Ackerman maintains that this image gives us the clue to seeing Wittgenstein's thought as a whole. The two periods of Wittgenstein's thinking are nowhere near as opposed as scholars are wont to make out. They differ only in that whereas in his first period Wittgenstein identified the whole city with one quarter of it, the "severely regular Levittown of the *Tractatus*," in his second he realized that the city contained many other quarters as well. Ackerman's aim is to show how the broader view of Wittgenstein's later period grows out of the earlier one, and how it preserves the teachings of the *Tractatus*.

In this project Ackerman sees himself as rescuing Wittgenstein from the misinterpretations of the majority of scholars, especially of those who trace their "authority of interpretation to personal acquaintance." Ackerman speaks to the uncommitted, and appeals to them to contrast his own interpretation with theirs against "the full range of texts." A worthy aim, to be sure. So why does Ackerman immediately go on to call his own interpretation a caricature? This is to give us a stone when we thought we were getting bread. Ackerman is either being humorous, in which case the joke is feeble, or serious, in which case we have no need to read his book. But one should ignore this remark. Ackerman's book deserves better than his caricature of it implies.

Ackerman gives us a series of chapters dealing with different quarters of Wittgenstein's city, including Picturing, Mathematics, Seeing and Color, Feeling, Psychology. His aim in each case is to show how the mature Wittgenstein, extending out from the preoccupations of the young Wittgenstein, developed the grammar, or revealed the inner structure, of each language game and what the limits of each was and

* Books received are acknowledged in this section by a brief resume, report, or criticism. Such acknowledgment does not preclude a more detailed examination in a subsequent Critical Study. From time to time, technical books dealing with such fields as mathematics, physics, anthropology, and the social sciences will be reviewed in this section, if it is thought that they might be of special interest to philosophers.

the way it related to, overlapped with, or merged into others. Wittgenstein is a sort of surveyor of the city of language. Yet he is more than a surveyor. He is also a sanitation engineer. Wittgenstein's philosophers "sweep up and dispose of the trash, leaving the city clean and orderly." For Wittgenstein's great complaint against philosophers, as we well know, is that they habitually make a mess of things by ignoring the limits of language. His great aim, from the *Tractatus* on, is to get rid of this kind of mess. To adopt another image, Wittgenstein takes up his position behind philosophy's parade of horses armed with a shovel. The shovel is language, carefully surveyed and mapped.

Ackerman does a good job leading us through different quarters of the city where Wittgenstein and his shovel have been. The chapter on mathematics is particularly good here. Wittgenstein's reservations about some of the work of Gödel (incompleteness) and Cantor (the nonenumerability of the real numbers) are not ignorance. They are serious questionings of whether such talk does actually attain sense, or generates only the impression of sense by extending terms that have a sense ordinarily into contexts where it must become a question (a question Gödel and Cantor did not ask) whether they have sense any more.

But the real interest of Ackerman's book is in his claim of continuity between the early and late Wittgenstein. That the *Tractatus* survives in the *Philosophical Investigations* as a part in a larger whole has some attractiveness. After all, Wittgenstein never said in the *Investigations* that all meaning was use, only that it was so for a large class of cases (§43). Some meaning, a certain kind of factual meaning, might still be picturing, and this is indeed one of the things that Ackerman wants to assert. But a part taken as a whole and a part taken as a part are not necessarily continuous. To see that the *Tractatus* describes only a part of language and not the whole was really a great leap. Moreover, how much of what is really fascinating about the *Tractatus* (fascinating for Wittgenstein as well as for us) survives this leap? The mysticism does not seem to. This might have survived in Wittgenstein's life but it did not show itself much in his philosophical writing. That awed gaze at existence, that grand vision of the whole, that religious sense of the ineffable, revealed so powerfully in the *Tractatus Notebooks* (written, we must recall, in the crucible of the trenches), is missing in the later writings. It is missing also in Ackerman's book. To shrink the world of the *Tractatus* into a few blocks of a city is indeed to lose a world, and not to gain a soul in recompense either.

This is indicated by Ackerman's closing chapter (entitled "Philosophy"). Wittgenstein's city is only a city and not a world. There is only one city, not several, and this one is static and fixed, and lacking any political or social structure and political or social philosophy. There are philosophers in it, to be sure, but they just turn out to be garbage collectors. They go everywhere and remove the trash but they only serve the city by making it "clean." They do not renew the city's spirit nor direct it to what is beyond the city. The author of the *Tractatus*, read as he wanted to be read, did do that.

But perhaps we should question whether Ackerman is right to make so much of the image of the city. After all, Wittgenstein only introduced it to show something about the completeness of language, that a language, like a city, can already be complete as a language and yet still be growing (Ackerman hides this by not quoting the full paragraph). To build a whole book on one image, an image taken out of context to boot, looks like doing what Wittgenstein said one should not do, namely, applying globally what only applies partially. The later Wittgenstein may have lost something of that awed mysticism he had in the *Tractatus* of his youth (which is surely a pity, for if one is to preserve anything from the *Tractatus* it should be the mysticism, not the garbage removal). But he did not lose it altogether. There is another image we can use from the *Investigations*, an image which, unlike that of the city, we are authorized to apply globally. In the preface Wittgenstein writes: "The philosophical remarks in this book are, as it were, a number of sketches of landscapes which were made in the course of these long and involved journeyings." Landscapes point to the world as the whole, not the city, and a whole through which one journeys. The album of part of this world is what Wittgenstein bequeathed to us. This album is a record not only of the world but also of Wittgenstein's journeyings. He journeyed to see what was there, and to see it from all sides. That the whole escaped him he admits. There is more left unsaid than said. As in the *Tractatus*, what is not written down turns out to be more important than what is. The mystery of the whole and its ineffability remained with Wittgenstein to the end. Is this continuity? Perhaps, but it does not matter what we call it. What matters is that we recognize it. Ackerman's book will help us with many things in Wittgenstein, but I fear not with that.—Peter Simpson, *College of Staten Island/CUNY*.

AUGROS, R., and STANCIU, G. *The New Biology: Discovering the Wisdom in Nature*. Boston: Shambhala, 1987. 274 pp. \$22.50—In an exemplary cooperation between science and philosophy, Augros (philosopher) and Stanciu (physicist) synthesize the discoveries and reflections of leading biologists in recent decades. More importantly, they show how these discoveries, when coupled with this century's overthrow of classical physics, calls for a new, more holistic understanding of animate beings and a philosophical re-thinking of the realm of nature as a whole. This book will be of great interest for those engaged in the philosophy of science and will undoubtedly appeal to all those who suspect that the simple reductionism which modern science is purported to uphold cannot do justice to the marvelous richness and complexity of the plant and animal kingdoms.

The goal of the book is twofold: 1) to show how two major pillars supporting the conceptual edifice of traditional biology, Newtonian mechanism and Darwinian natural selection, have crumbled before the discoveries of contemporary physics and those of ethology, ecology, and paleontology; 2) to provide a new paradigm which both is adequate

to these new discoveries and provides a framework for further research within biology.

Within physics, the discoveries of relativity and quantum theory overthrew Newtonian mechanics and especially its underlying presupposition that the ultimate constituents of natural bodies are themselves tiny bodies or particles whose properties and motions alone explain all natural phenomena. Moreover, the recognition of the observership principle—at the atomic level, description of phenomena must include reference to the observer—means that mind cannot be taken as a mere epiphenomenon of matter, but is rather a basic, irreducible constituent of the universe along with matter (ch. 1). Biologists, the authors maintain, have largely failed to assimilate the new physics, and continue with a reductionist, mechanical model of living organisms. Within this model, explanation—and with it research—focuses almost exclusively on biochemical bases for organic functions, overlooks those aspects of the functions which cannot be described in such terms, and generally tends to lose sight of the organism as a whole.

Just as physics has recognized the importance of form and organization in describing the smallest particles, so too biologists need to recognize the priority of organic form. What most distinguishes any living thing is not its matter, but the unique and irreducible form it gives to that matter. Living things are active wholes and must be studied as such. Augros and Stanciu cite numerous fascinating examples of this approach from the studies of ethologists Lorenz, Tinbergen, and their followers. This is not, however, to ignore the underlying material structures, such as the brain and the nervous system, or the biochemical analyses of photosyntheses or digestion, but simply to recognize that such structures and analyses are ultimately intelligible only in terms of the activity of the whole animal (ch. 2). Freed from obsolete reductionism, biologists can study, on their own terms, phenomena peculiar to living things, especially those proper to animals such as perception and instinct. Phenomena like these, involving as they do some degree of conscious awareness, cannot be understood mechanically, and should be understood by reference to human awareness, of which we have direct experience (ch. 3).

Turning to evolutionary theory (chs. 4-6), Augros and Stanciu accept Darwin's basic insight that present species are descendents of more primitive species. Nevertheless, in view of the findings of this century, they argue that natural selection cannot be the explanation for this development. Darwin's natural selection postulates (1) a constant geometrical increase in species population, (2) a struggle for survival resulting from this increase, and (3) a gradual accumulation of advantageous variations which produce, over time, entirely distinct species. But (1) field studies point to a variety of natural *internal* controls on the rate of a species' reproduction in any given conditions, leaving geometrical increase as a mere mathematical construct. When (2) the interaction of living organisms is studied systematically, cooperation among and within species seems to be more basic than competition and struggle. Moreover, (3) animal breeders of the past century, while able to modify species, encounter sharp limitations and

provide little evidence for the infinite plasticity of species which natural selection demands. Most telling of all, however, is the fossil record. Instead of the gradual development of species which would follow from natural selection, paleontologists have discovered a general stability of species punctuated by short periods of species extinction or proliferation. As a more probable cause of evolutionary development, the authors propose changes in regulatory genes which would produce the saltational speciation evidenced by the fossil record. Appealing to an internal principle, such an explanation is more congruous with observed nature's mode of functioning and is actually more scientific in that it permits of experimental verification/falsification.

Without the theory of natural selection, it seems reasonable to accept the manifest purposiveness or teleology found in organisms as an integral part of nature and to recognize the legitimacy and, indeed, necessity of teleological explanation in biology. Moreover, the authors accept the notion of an anthropic principle, according to which the development of the cosmos as a whole is aimed at and finds its completion in human beings endowed with a capacity to reflect on the whole universe. Thus biologists must also employ a notion of hierarchy in which lower forms of life arise for the sake of higher forms (chs. 8-9).

In short, the authors propose a biology which, while accepting analyses of underlying structures and processes, nevertheless posits the irreducibility of living wholes and their characteristic activities. Natural kinds or species are recognized as essentially stable, and the new theory of evolution must account for this. Each species is nested within a larger ecosystem for which it is naturally suited. So understanding the natural world, biologists are fitted to uncover nature's wisdom and beauty.

This book is extremely readable with a clarity and simplicity of style that almost mask its profundity. It contains so many and such various descriptions of the actual workings of nature as to recommend its reading on that ground alone. Of even greater value is the synthetic and philosophic work it represents. Augros and Stanciu bring clarity to several debates among biologists (e.g., reductionists vs. emergentists, creationists vs. evolutionists), providing a view of the whole which incorporates the truth of both sides. For their fairness in the midst of controversies, for their desire to mold theory to fact, and perhaps most of all, for their manifest love of the natural world, the authors are to be commended.—David Gallagher, *The Catholic University of America*.

BITTNER, Rüdiger. *What Reason Demands*. Translated by Theodore Talbot. Cambridge: Cambridge University Press, 1989. ix + 198 pp. Cloth \$37.50; paper, \$12.95—The two most conspicuous features of the rather hectic activity in contemporary moral philosophy seem to be these: First, while eleventh-hour attempts are still being made to

salvage foundationalism in some (appropriately mitigated) Kantian sense, center stage is held by the debate between partisans of a pallid, if ironic, liberal solidarity and defenders of the supposedly vivid authority, or authoritarianism, of shared traditions and life-practices. And yet, second, jettisoning rational foundations has not meant abandoning all sense of the reasonableness of the "moral" requirements inherent in the descriptive or prescriptive frameworks being championed. The search is still on for apposite tracings of those textures of moral/ethical life such that it appears reasonable, if not ultimately justified, for an agent to adhere to some array of norms, prescriptions, laws, recommendations, or, at the least, beliefs about what is good.

Rüdiger Bittner's book, a translation of *Moralisches Gebot oder Autonomie* (Stuttgart, 1983), is a *tour de force* in more than one way. It is written by an author with his feet planted squarely in both the analytical and the "classical" German camps, so that English-language readers will quickly recognize names such as Rawls, Gewirth, and Foot, while coming to see the connections with Kant and Hegel, as well as with Gadamer, Henrich, Ritter, and Habermas. Moreover, Bittner constructs a sequence of quite trenchant arguments, divided into 203 short paragraphs and addressed to the two familiar, but distinguishable, questions "Why should I be moral?" and "Should I be moral?" Once he has dismantled several well-known analytical arguments for the validity of moral demands (e.g., contracts and promises), his negative and somewhat unconventional answer reads: "To the child's question 'Why should I be moral?' our answer was this: No reasons can be seen. To the new question, 'Should I be moral?', we now have the answer: If you want to be, yes; otherwise, no" (p. 107). These answers lead him to defend a version of Aristotelian *phronesis* as supplying a positive picture of "what rational action looks like under the condition of autonomy and in the absence of moral demands" (p. vii). *Phronesis*, wedded together with Bittner's own rendition of autonomy (p. 96: "A person is always subject to her own legislation alone. She is subject to it alone because one cannot act according to an alien law."), issues in a "dietetics of the entire human being" (p. 128). "Practical reason is not a judge, but a physician" (p. 128). Advice, to oneself or to another, is the proper mode of moral discourse.

In his final chapter Bittner tries to meet Hegel's objections to the contingency of the first-person desires and purposes recommended by prudence. "There is nothing sad about the idea of the finitude of things," he replies, and ends the book by quoting Hölderlin's poem *Ehmals und Jetzt*. Reason, in sum, makes no moral demands; the autonomous, prudential life, appropriately construed, is nonetheless reasonable.

Since each of the book's seven chapters is prefaced by a very detailed summary of its arguments, a reviewer is free simply to underscore some crucial distinctions and to raise a few of the many questions provoked by this fascinating book.

First, the reader needs to be clear that justification and validation are quite different matters for Bittner (see esp. pp. 19–22). Moral

demands might turn out to be valid [*gültig*] independently of justification. The latter speaks to *why* a moral demand ought to be heeded; the former, to the fact *that* it ought to be heeded. Both tasks involve supplying reasons, but reasons of different sorts. Second, the topic of Bittner's inquiry should be specified as precisely as possible. He is interested in the logic (or illogic) of moral *demands*, *Gebote*, as in *die zehn Gebote*, the Ten Commandments, not in "moral norms or principles" (p. 6). "Moral demands are simply one kind of thing that people utter" (p. 6), on a par, ontologically, with greetings and insults. Throughout the work, then, Bittner seems to have in mind speech-acts in which a speaker addresses to another a demand of the form 'You ought to do X'. Sometimes, however, he speaks of "moral laws" in a broadened sense, in virtue of which all the actions we perform are "actions according to laws" (p. 99), indeed, according to "self-given law" (p. 98), since self-legislation is analytically entailed by his proposed concept of an action. A certain degree of ambiguity is the result, because "it belongs to the concept of a demand that it is sometimes directed at people unwilling to comply," while moral laws "have a claim only on those who want to act according to them" (p. 107). (Not surprisingly, there is no place for any of the traditional notions of natural law or natural right in his argument; cf. Cicero's definition of *libertas* in *Paradoxa Stoicorum* ¶34.)

In Chapter 5 ("Autonomy"), the longest in the book, Bittner sets out to show, by a painstaking analysis of Kant's *Grundlegung*, chapter 3, and sections of the Second Critique, that neither text, however charitably reconstructed, provides a sound argument that moral demands are valid. The argument from autonomy in the *Grundlegung* rests on an irremediable confusion between two senses or "levels" of autonomy, while "the fact of reason" in the Second Critique is *ad hoc* and unavailing, since "the rational cannot be the sort of thing that forces itself upon us" (p. 90; "Why not?" one might be tempted to ask). Bittner's rendition of autonomy, immunized against his objections to Kant, is quite formal, as he himself will later remark (p. 104). The set of heteronomous principles is empty and this in turn leads to his paradoxical-sounding conclusion that while there may indeed be moral laws (derivable from the principle of autonomy, plus a condition of universalizability), these same laws, when construed as prescriptive demands, are null and void. "The claim is that in the case of conflict with the child's will, the moral law is invalid, and appeal to it void" (p. 107).

The appropriate model for the relation between moral laws and individual volition is, then, Kant's "holy will" in which "the 'ought' is out of place." Good reasons, those "fitting into a person's plans and experience in a way that makes sense" (p. 111), replace moral laws, just as prudence ought to replace Kant's pure practical reason. (Presumably Bittner, who fashions a version of *phronesis* that draws on both Aristotle and Kant [ch. 6], would want to distinguish it from what the former calls *deinotes*, cleverness at selecting means without deliberation concerning the goodness of ends. Prudence as a "skill" [p. 129] carries some suggestion of *deinotes* as well as of *phronesis*.)

In the final chapter ("Finitude"), no doubt the most demanding for many English-language readers, Bittner offers a particularly elegant interpretation of "The Spiritual Animal Kingdom" in the *Phenomenology*, taking Hegel's implicit target to be the very prudence defended in the preceding chapter. For Bittner, *contra* Hegel, "As a rational being, the spiritual animal does not console itself on [sic] the transience of its works with the idealism of the 'matter at hand', but surrenders itself and its work to this transience" (p. 151). This discussion is followed by an exegesis of the rather obscure appearance of 'the Ought' [*das Sollen*] in Hegel's *Seinslogik*. According to Bittner, Hegel does not provide convincing evidence of the self-transcendence of the finite (e.g., an individual moral agent) into *its* essential infinity (e.g., "a supraindividual context of meaning for our actions" = *Geist*). "What is finite exhausts itself in its exterior. . . . The finite does not have any determination [*Bestimmung*]. It freely passes into its manifold constitution [*Beschaffenheit*]" (p. 156). Hence, for him, there is no "Spirit," only "Reason" in "our manifold life" (p. 157). One might wish that Bittner had said more about the Fichtean setting of 'the Ought', where it is of a piece with infinite striving or the aspiration utterly to transform oneself and the environing social and natural worlds. This aspiration, however limited and rambling it may eventually turn out to seem, is for Hegel a crucial part of "the ground of the modern world" (*Rechtsphilosophie* ¶136, Zusatz). In other words, the vaunted "infinity" of "the moral standpoint" is the precondition of modern politics and the latter is the *sine qua non* of the individualistic autonomy Bittner has just embraced. Does this jibe with Bittner's endorsement of Hobbes against Aristotle and Kant? (Cf. pp. 135-6.)

In the end the texture of the undemandingly "moral" life, as woven by Bittner, seems somehow thin and scrappy. His pivotal example, a parent's exhorting a child to save the last piece of candy for a sibling, is telling. Will this example fit the proportions of concerted crimes against humanity? On Bittner's showing could we make full sense of, say, Levinas's thesis that the visage and speaking of another person make ineluctable claims or demands on me: "the face orders and ordains me" (*Ethics and Infinity*, p. 97)? Will Bittner's marriage of individualistic autonomy to quasi-situational prudence yield a way of reckoning with such ethical "perspectives" or will it have to consign them to the same margins to which original sin is pushed: ". . . the friend of prudence has nothing to reply, for his opponent already considers worthless whatever reasons he might advance" (p. 135)?

This is an eminently well-argued book. The translation by Theodore Talbot is almost invariably fluent.—David R. Lachterman, *The Pennsylvania State University*.

BROWN, Barry F. *Accidental Being: A Study in the Metaphysics of St. Thomas Aquinas*. Lanham, Md.: University Press of America, 1985. xii + 427 pp. Cloth, \$31.00; paper, \$19.50—Peter of Bergomo, one of

the first to attempt to compile an index and concordance of Aquinas's works, often noted apparent discrepancies between diverse texts. His entry for "accidens" is no exception since approximately ten percent of its divisions are prefaced by the familiar "oppositum videtur dicere." The reader is left with the task of determining whether Bergomo's notations concern only apparent contradictions or whether St. Thomas indeed made significant alterations in his understanding of the topic. Brown's portrayal of Aquinas's texts in their specific contexts permits a nuanced interpretation of St. Thomas's diverse considerations of the being of accidents which avoids both of the aforementioned alternatives.

The endeavor is not a mere effort in "paléo-thomisme." As Brown remarks, the study of accidental being reveals crucial details about the nature of finite substance. It illuminates complex features about the structure of essence, the distinction of being and essence, the nature of substantial and accidental change, causality, analogy, the body/soul unity, the soul's powers, as well as the realm of the virtues and the transcendentals. Such refinements are critical in a plenary metaphysics of creation which may serve sacred theology in reflections on the unity of person and natures in Christ, on grace, and on transubstantiation.

Initially, Brown considers two interrelated ways of formulating the central problem: "does a substance have an accidental being really other than its substantial being?" and "does an accident have its own being?" The first question addresses the nature of the accident in the concrete as united with and modifying its subject, while the second focuses on the accident in the abstract, without explicit inclusion of its substance/subject. Once the interrogative parameters are established, a brief mention is made of Aquinas's continual terminological modulations effected by speaking "properly," or strictly, and broadly. The final accomplishment of chapter 1 is a brief examination of textual sources in St. Thomas's writings that are used to justify divergent interpretations of his position. These are grouped into three major factions which include personages from the fourteenth-century through the twentieth: those holding that Aquinas thought that accidents have their own being other than that of their subject; those insisting he did not; and those who contended he taught that only some accidents (proper accidents or properties) have the same *esse* as that of their substance, whereas the others, such as contingent accidents like operations, have their own being.

Chapter 2 examines accidents as essence and as being. Relevant texts, including Aquinas's articulation of the "true description" of accident as "a thing to the nature of which belongs being in another" (*Quodl.* 9, 5, ad2), indicate that accident may have a being radically distinct from that of substance. Other texts affirming accidents to be "of a being" are shown to mean only that accidents undoubtedly are being without, however, downgrading their ontological status. Brown successfully demonstrates that texts which assert accidents to have no *esse* can only be read as meaning that accidents do not subsist *per se* in the manner of substances. This implies that Aquinas's affirmations that the being of accidents is "being-in" do not justify the

view that he thought accidents to have no being other than that of their substance.

The preceding analyses lead into a lengthy examination of the causal dependence of accidents, their nonessentiality, mediation and action, as well as the relation of substance to accident. After a careful analysis of Aquinas's reflections on the modes of *per se* predication, Brown concludes that Aquinas "considers the causality of a subject to be either efficient causality, or at least some kind of existential causality, if the term 'efficient' is to be restricted to generation" (p. 91). Such is confirmed when St. Thomas affirms that the subject is "in a way" an active cause of accidents, while an accident is a formal cause. After examining diverse texts which deal with aspects of this issue, Brown points to an analogy between the natural resultancy or emanation of accidents and creation in that both are active in some way without implying transmutation or change. They differ, however, in that emanation does not involve newness in being, strictly speaking (p. 106). This leads Brown to refine his assertion by admitting emanation to be more closely allied analogously to conservation.

While chapter 3 deals with texts that treat the efficient causation of accidents in an "accident-oriented" emphasis, a "less strict" manner, chapter 4 emphasizes the formal causality of accidents, thus counterbalancing the prior focus by recognizing that an accident causes its own *esse* by reflexive specification of the influx of *esse* which is efficiently caused by its subject (p. 159). Chapter 5 portrays the ramifications of this doctrine of accidental being in the following areas: imperfect being; unity of soul/body; powers of the soul; infused virtue; the Hypostatic Union; unicity of being; relation; composition of relational being/subject; being as becoming's term; being/goodness; and the excellence of accident. Each topic is methodically examined, and with each precision concerning Aquinas's doctrine new insights are suggested.

Chapter 6 considers issues related to the real distinction of accidental and substantial being. The initial focus is on texts concerning the categorial division of being as manifesting a multiplicity of really diverse modes (p. 240). Next, the contradictory opposition of the division of substance and accident is explored in terms of Aquinas's insistence that there is nothing intermediate between substance/accident when "accident" is understood as "predicamental" (p. 242). Third, the relation of modes of predication to modes of being, a plurality of *esse*, is portrayed. Subsequently, the real diversity between being and essence in all the accidental categories is established, and objections against their real composition in one subject are examined (pp. 245-54).

The remainder of this final chapter concerns analogy, participation, and attribution. Brown concludes that it is the relation of an essence to the being that actuates it which constitutes the basis of an analogy of proper proportionality, and also makes possible the unity of substance/accident in the analogy of attribution (p. 254). Since participation principally concerns the dependence of substantial being upon the First Cause, the notion is recessive in regard to treating substance/accident, especially since accidental being is only mediately dependent

through its subject upon the First Cause (p. 261). Nonetheless, when Aquinas affirms that being is participated by all things, he means all predicaments as well (pp. 262–3). When stating that an accident participates the being of substance, the understanding is in terms of efficient causality which guarantees the otherness of the being that is participated (p. 264).

In contrast, the analogy of proportionality is maintained in the determination of *esse* in that accidental form limits and determines accidental being just as substantial form does substantial being. Such yields a single substantial *esse* and a multiplicity of accidental ones, each with its own limit (p. 265). Thus, real being is truly affirmed to belong both to a supposit and to accidental being which belongs to the supposit as an *esse* added over and above the union of the thing's substantial principles (p. 271).

This excellent, sustained examination of Aquinas's doctrine ends with a reaffirmation of the absolutely primal actuality of substantial being in a thing as being the source, through efficient causality on the part of the subject, and of, the secondary entitative acts that it actualizes. These acts are limited by their respective essences, which in turn limit the subject (pp. 287–8). As such, the procession of accidents from any substance is an ordered formal sequence which is permeated with the efficient causality proper to a created universe.—Michael B. Ewbank, *Loras College*.

CAPALDI, Nicholas. *Hume's Place in Moral Philosophy*. Studies in Moral Philosophy, vol. 3. New York: Peter Lang, 1989. xii + 380 pp. \$54.50—The name Nicholas Capaldi is well known to students of David Hume, since Capaldi has been a key figure in the Hume renaissance of the last quarter century. Over a span of two decades he has written numerous articles on Hume, edited anthologies (one forthcoming), and authored two Hume books, of which this is the second. The quality of this work will therefore surprise no one; *Hume's Place in Moral Philosophy* is a first rate piece of scholarship. Capaldi concentrates here on the *Treatise* and the second *Enquiry*, as is proper, but he knows the rest of Hume and Hume scholarship so well that the book cannot be said to neglect anything of importance.

Despite the title, his aim is broader than "placing" Hume: the core of the study is a painstaking textual explication, demonstrating the coherence of Hume's moral philosophy, but also illuminating the subtle shift in Hume's understanding from *A Treatise of Human Nature* to the work which Hume himself regarded as "of all my writings . . . incomparably the best," the *Enquiry concerning the Principles of Morals*. But Capaldi does succeed in placing Hume, in two senses: historically, in the debates of Hume's day, and also in contemporary moral philosophy, by a convincing demonstration of Hume's relevance to our debates. In fact, the former is the means to the latter, since by showing how Hume addresses the issues of his predecessors (and how he was attacked by his contemporaries), Capaldi is able to correct a number of mistaken but all too common readings of Hume. He

accomplishes this with a patience and rigor that any scholar will envy.

The study begins with a chapter on the intellectual milieu in which Hume first conceived the project of the *Treatise*, and Capaldi includes brief discussions of Cudworth, Clarke, Hobbes, Locke, Mandeville, Butler, Shaftesbury, and Hutcheson. He turns next to a careful outline of the main argument of book 3 of the *Treatise*, Hume's earliest formulation of his moral theory. The first two chapters set the stage for an entire chapter devoted to Hume's notorious "is-ought" paragraph (the conclusion of *Treatise* 3.1.1) which, as Capaldi notes, is of "crucial importance . . . for contemporary moral theory." His reading of this passage is thoughtful and convincing. By carefully tracing the terms of the eighteenth-century argument, Capaldi puts the paragraph in perspective. Against what many readers have mistakenly assumed Hume meant, Capaldi shows that "the whole thrust of Hume's moral philosophy is not to cut off moral philosophy from the rest of human experience but to show how much it is a part of ordinary human experience. . . . Other philosophers had conceptualized our moral experience and practice by means of the alleged moral 'ought'. What Hume rejected was that conceptualization because he found that it failed to capture our experience and practice. We as readers should not confuse the rejection of a particular conceptualization with the rejection of the practice the conceptualization was meant to capture" (p. 57).

This is part of the larger and ultimately most important theme of the book, namely, that Hume's revolutionary contribution to philosophy was to formulate a challenge to the epistemological claims of early modern thinkers (especially Descartes and Hobbes) and their conception of science or philosophy (theoretical reason). Capaldi calls this Hume's "Copernican revolution," alluding to the shift in perspective—or self-consciousness about perspective—which is at the heart of Hume's philosophy, specifically in his acknowledgment that "philosophical decisions are nothing but the reflections of common life, methodized and corrected" (*EHU*, 162). Capaldi formulates this as a shift from an "I think" perspective (the isolated thinking subject viewing science or theory as a remedy for defective common sense) to a "we do" perspective, where the philosopher understands himself to be testing "his theoretical conclusions against the standard set by practical requirements" (p. 21). Hume's conception of philosophy recognizes the priority—and inescapability—of prescientific thought as constitutive of our world.

Chapters 4–6 present Hume's accounts in the *Treatise* of moral judgment (as opposed to moral sentiment), the passions, and the sympathy mechanism. These important sections, neglected today, were altered somewhat by Hume himself in the second *Enquiry*, and Capaldi turns to this great work in the seventh and penultimate chapter. Chapter 8 provides both a summary and extension of the key points in the book; here of course one finds some things to argue with.

The book is marred only by the lack of an index and by a major error in one of the key quotations in the book, one presenting Hume's account of benevolence, the fundamental principle in the second *En-*

quiry. (Hume says, speaking of the "generous sentiments" of benevolence, that though they are weak, where everything else is equal "they must . . . produce a cool preference of what is useful and serviceable to mankind." In the book (p. 251) "preference" is rendered "performance"!)

This book deserves to be widely read, and should generate fruitful controversies (and, one hopes, settle some less fruitful ones). No Hume scholar can afford to ignore it, and no one else should be allowed to.—John W. Danford, *University of Houston*.

CAWS, Peter. *Structuralism: The Art of the Intelligible*. Atlantic Highlands, N.J.: Humanities Press International, 1988. xiv + 276 pp. Cloth, \$45.00; paper, \$15.00—This book, the ninth in a series entitled "Contemporary Studies in Philosophy and the Human Sciences," treats structuralism as a general intellectual movement spanning several disciplines and as a contribution to philosophy. In part 1, Peter Caws considers structuralism as an intellectual movement as it has manifested itself in such disciplines as linguistics, anthropology, mythology, literary criticism, and psychology. Since so many writers who have contributed to structuralism have not explored its implications with the consistency and thoroughness demanded of philosophers, Caws devotes part 2 to a consideration of structuralism as a "subdiscipline of philosophy." Caws's goal is "not only to make the phenomenon intelligible, but also to acknowledge its challenge and usefulness."

Because of his clear and thorough exposition of the nature and varieties of structuralist thought, Caws's book will be of much value both to philosophers and to scholars outside the discipline of philosophy. He traces the origin of structuralism to the structural linguistics of Saussure and elaborates on its variations in the works of such thinkers as Jakobson, Levi-Strauss, and Cassirer, with particular attention to the structural anthropology of Levi-Strauss. Caws demonstrates that structuralism has become a prominent feature of contemporary thought and research and finds elements of structuralism in the writings of such groups as literary New Critics, Gestalt psychologists, and developmental psychologists, and in the works of such divergent thinkers as Freud, Peirce, Marx, Piaget, and Foucault. He considers in detail the history of structuralism in its various manifestations in France and in America.

Caws devotes particular attention to the linguistic base of structuralism and demonstrates how language can serve as a paradigm for the academic disciplines of the social and human sciences. He excludes "the natural sciences from the area of structuralist concern because their structures are obliged to conform to those of nature" (p. 146).

In part 2 Caws considers structuralism from the perspective of a professional philosopher, recapitulating in systematic detail the major points he made earlier in the book and offering his own views

concerning structuralism. He describes the situation of human beings in search of meaning and implies an argument for structuralism clearly and in nontechnical language:

. . . we have at our disposal only the present moment and things in the world as they are, . . . our task is to make sense of these from a standpoint within the world, and . . . any pretense to an Archimedean fulcrum outside the world, or even at a remove from our own standpoint within it, is suspect. (p. 169)

Caws finds unacknowledged structuralist insights in Russell, Carnap, and Wittgenstein, "three philosophers who could not possibly have been accused of any taint of structuralism as it was expounded in Part I" (pp. 171-2). Caws finds in structuralism a method and a perspective for constructing meaning, not ultimate meanings of human life and the universe, but local meanings such as may be found "in the works of civilization and in the relationships of daily life." Seeking ultimate meanings Caws finds "a futile enterprise" (p. 183).

Caws makes his own philosophical position clear by contrasting his own "structural materialism" with phenomenology and materialism. Caws is critical of those who would deemphasize either the role of the knowing subject or the "stuff of the world," however defined—as matter, energy, or fields. Structuralism, in Caws's view, takes into account both the "conscious subjectivity" of the knower and the "material objectivity" of the world.

Caws finds in deconstruction a reaction to those who would attempt to create absolute structures of knowledge. It is also a technique for examining critically inherited structures of meaning. Caws has no objection to the critical project of deconstruction, but he objects to calling it poststructuralism, since the latter term implies that the period of structuralist thought has ended. Caws argues that structuralism is far from over; it is an on-going movement and approach that will deservedly be integrated into the history of philosophy.—James S. Mullican, *Indiana State University*.

DILTHEY, Wilhelm. *Selected Works. Volume I: Introduction to the Human Sciences*. Edited by Rudolf A. Makkreel and Frithjof Rodi. Princeton, N.J.: Princeton University Press, 1989. xvii + 524 pp. \$55.00—For the first time, the English-speaking world will have full access to the seminal writings of one of the most important sources of contemporary continental thought, Wilhelm Dilthey (1833-1911). This is the ground-laying first of six projected volumes which will allow Dilthey's influential writings on the philosophical understanding of history and culture to be more fully recognized, reexamined, and appropriated by those who are interested in the nineteenth-century roots of phenomenology, hermeneutics, structuralism, and critical theory.

Dilthey conceived his *Introduction to the Human Sciences* as a two-volume, systematic "critique of historical reason." The bulk of the

first volume, published in 1883, and the important drafts and general plans for the never-completed second volume comprise, respectively, the two halves of this outstanding first book of the English edition. Dilthey's ambitious project is to establish the independence and priority of the human sciences (*Geisteswissenschaften*) in relation to the natural sciences (*Naturwissenschaften*) with regard to their foundations, subject matter, and methods. He surveys the system of the particular human sciences, differentiating them in their inner coherences, delimiting them in relation to the explanatory natural sciences, and centering them in the socio-historical reality of *Geist* to which they provide immediate access through inner lived experience, understanding, and interpretation. He argues for the necessity of an epistemological foundation for the human sciences, rejecting the claims of philosophy of history and sociology to provide this scientific ground.

Dilthey studies the dominance and decline of metaphysics as foundational science. From Aristotle to Hegel, in Comte and in Kant, metaphysics attempts to "go behind" life to universal categories of substance and causality. "It is one of Dilthey's most important claims that these categories are neither Aristotelian abstractions from the objective qualities of external reality nor Kantian formal relations projected by the mind, but are derived from our own lived experience of life as given in self-consciousness" ("Introduction," p. 21). Metaphysics preserved the idea of a totality and unity of knowledge, thereby negating the dispersions and anarchies of the sciences. But attaining such absolute knowledge is impossible, for the bonds of the integral world-system cannot be univocally defined or demonstrated by the intellect. What remains, however, "is a meta-physical aspect of our life as personal experience, i.e., as moral-religious truth" (p. 218), which reveals itself when a human being "breaks through the nexus of perception, desire, drive, and gratification, such that he no longer chooses himself. . . . [M]etaphysics as a science is a historically limited phenomenon, whereas the meta-physical consciousness of the person is eternal" (p. 218-19).

In his drafts and first plan for the second volume of his *Introduction*, Dilthey elaborates a phenomenological description of the modes, contents, and scope of consciousness in relation to its correlate, the real world; and he examines the laws, forms, and methods of thought that govern all acts of representation. In his second plan, the epistemological and logical analyses are subsumed under a wider understanding of philosophy as "the self-reflection of society." Descriptive and comparative psychology is seen as the first of the human sciences, its task that of providing a developmental, historical self-understanding that is the encompassing context for all other understanding systems. Anthropological reflection is seen as dealing not just with the facts of consciousness, but with the basic structures of life. The analysis of language replaces the earlier analysis of the forms and laws of thought. The editors observe in their illuminating, forty-page introduction to the text: "The main purpose of the *Introduction* is to give the human sciences priority over the natural sciences by relating them

back to the general categories of language" (p. 39).—Mary Katherine Tillman, *University of Notre Dame*.

DOR, Joël. *Introduction à la lecture de Lacan*. 1. L'inconscient structuré comme un langage. Paris: Denoël, 1985. 265 pp. 118 F.—This well-written book introduces the reader step by step and in a pedagogical way to an aspect of Lacan's thought: the claim that the unconscious is structured like a language. A number of commentators have already introduced two crucial concepts of Lacan into the American intellectual community: the imaginary and the symbolic. Thus the now standard introduction and companion volume to Lacan's *Ecrits: Lacan and Language*, by John P. Muller and William J. Richardson, gives in the introduction a good presentation of these two concepts. A brief look at the table of contents of the book by Dor allows us to see that Dor takes a further step in the presentation of Lacan's ideas. The first part, "Linguistics and the formation of the unconscious" (pp. 25–86), is only an expansion of the introduction of the Muller-Richardson book, while the second part, "The paternal metaphor as structuring pivot for subjectivity" (pp. 89–173), goes beyond it. The ideas developed in the second part can be usefully complemented by the chapter on the paternal metaphor in the book by De Waelhens *Schizophrenia* (ch. 4) and by my essay on the paternal metaphor (Duquesne University: Silverman Lecture, 1988) or the one on "Fatherhood and Subjectivity" (*Philosophy and Theology*, 1989). In these other pieces we do not find a clarification of a Lacanian distinction between the subject of the enunciation and the subject of the enunciated. We also do not find in these other pieces a clarification of Lacan's famous schema L. Dor clarifies both admirably in this part of the book.

The great contribution of Dor's book, however, is his third part, entitled "Desire-Language-The unconscious." In it Dor explains Lacan's famous but enormously complicated graph of desire. That graph was introduced in Lacan's *Ecrits* in the article "Subversion of the subject and dialectic of desire." The importance of that graph and the ideas associated with it is that in it Lacan tries to articulate the consequences of a philosophically very important claim: consciousness is constitutively influenced by both language and desire. From linguistics we know that meaning in a sentence cannot be constituted until the end of the sentence has been pronounced. That fact requires us to see that for meaning to emerge in a sentence, consciousness has to retain and yet go back to the beginning.

Turning now to the problem of desire, we learn that Lacan has accepted Kojève's formulation of Hegel's discussion of this matter. That formula is that desire is desire of the desire of the other. Dor is now in a position to show how Lacan uses the idea that the structure of language and of desire influences the acts of consciousness. Dor does it by showing how Lacan gives a new reading of Freud's interpretation of a slip of the tongue. According to Lacan a slip of the tongue is a

linguistic performance not consciously intended, often not consciously recognized by the speaker, but glaringly noticed by the listener. Furthermore it is often a barred, repressed message unconsciously intended to be heard by another. It is after the fact that the speaker can be made aware that he uttered a hidden message about his own desires. This problematic allows the reader access to Lacan's concepts from a point of view that has far reaching philosophical implications. Dor does a very good job at reconstructing Lacan's thought on this problem. The book is written in a pleasant and readable style with ample print size. All in all we have here an attractive and informative book. More about this problem may be found in Lacan's seminar of 1957-58 on "The formations of the Unconscious." That might be a rewarding but daunting task.—Wilfried Ver Eecke, *Georgetown University*.

FERRARI, G. R. G. *Listening to the Cicadas: A Study of Plato's Phaedrus*. Cambridge: Cambridge University Press, 1987. xiii + 293 pp. \$42.00—*Listening* represents a welcome contribution to the now substantial body of recent literature on *Phaedrus*. In the book's seven chapters, Ferrari discusses various parts of the dialogue and offers many helpful points along the way. For example, Ferrari's remarks are good on the controverted question as to whether the lover in the palinode "uses" the beloved, as are his observations about the struggle between the three parts of the soul (253d ff.). Ferrari persuasively points out that each part of the soul really represents a way of life (pp. 200-3), a possible human type. Ferrari offers the novel and probably correct view that the question as to the authenticity of the speech attributed to Lysias is intended ironically by Plato to parallel the question as to whether the "demythologizers" are right to pursue the historical origins of myths (pp. 210-1). In his last chapter Ferrari surveys various approaches to the famous critique of writing, opting for a modified version of the view that the critique is meant to express a serious distrust of writing, that Plato thought he had discovered a way of writing that avoided the thrust of critique, and that the spoken word ultimately remains (when properly understood) superior (pp. 206, 212). Ferrari thus positions himself against Burger's and Derida's interpretations. Ferrari rightly sees that the critique of writing engages the major issues of the dialogue and ought not be severed from them (p. 222).

What are those issues? For Ferrari the largest issue is "the vindication of the philosophic life against a life that seeks only its effects" (pp. 222-3). The dialogue is "a competent philosophic analysis of philosophic competence itself" (p. 35). Or again: *Phaedrus* is about "philosophy" understood as a nonprofessional "art of living well," in contrast with the degenerate understanding of the art of speaking as mere epideictic rhetoric (p. 20). Socrates in some way embodies the former view, *Phaedrus* the latter. Correspondingly, *Phaedrus* is an

"impresario" (p. 7). Phaedrus would feel at home, Ferrari says, at any "Elvis Presley convention" at which act-alikes do their imitations (p. 209). Now, to talk about philosophy is to do philosophy, and Ferrari takes this self-reflexive feature of philosophical examination to entail that philosophy can never fully articulate its own nature, its own "conditions of possibility" (pp. 31-3, 121; this is a phrase that recurs frequently in Ferrari's discussion). Thanks to this "meta-philosophic" (p. 121) situation, part of the picture must *always* be left in the "background," and "true competence . . . comes from never losing sight of the background" (p. 74). *Phaedrus* enjoins us to listen to that background, as to the cicadas (pp. 31, 57; hence the title of Ferrari's book), despite Socrates' injunction at 259a-e that we converse rather than listen to the cicadas.

The nondispensable background to the whole discussion is the "drama." Analogously, myth is "a verbal medium that confesses to its own inadequacy" and so "is an ideal medium to convey the non-verbal background to philosophic verbalising" (p. 121). As a discourse about "the conditions of the philosophic life," the great myth provides a mirror in which we can contemplate our own souls, and so the "sad contingency of our embodied state" (p. 123). It allows us to "cope" (one of Ferrari's favorite verbs here) with contingency. Further, the myth invites us to pursue a certain way of life, but that invitation cannot be an argument. It is a central contention of Ferrari's that *Phaedrus* ultimately teaches that there is no convincing argument for the superiority of the philosophic way of life over, say, that instantiated by Phaedrus; Socrates does not refute the theses of Lysias' speech, he progresses thanks to "a certain courage, as it were, in his own crassness" (pp. 54-5, 63). But Plato's view of philosophy lies in both halves of the dialogue and in their relation (p. 30). The myth and the "dialectic" in the second half of the dialogue stand as both foreground and background to each other: "the entire dialogue is jointed with such a dovetail of background and foreground" (p. 31).

Ferrari does well to elicit the central self-reflexive and meta-philosophical stratum of *Phaedrus*. His discussion is often insightful and elegant, offering many good points about specific passages. But I find his articulation of the issues adumbrated in the preceding two paragraphs hard to follow at crucial junctures. Too much is left in the background. I refer not only to the question as to why the "background" of philosophizing *must* escape full articulation, but also his explanation of the unity of the whole dialogue. Ferrari concludes by dissuading us from trying too hard to unify *Phaedrus* (p. 232), on the odd grounds that a philosopher's experience of love as described in the palinode is a contingent matter. But if the dialogue has a unifying theme, and if the parts dovetail so nicely, then surely this will not do.

Ferrari makes articulation of that unity difficult when he decides to explicate the bulk of the second half of the dialogue before the bulk of the first. For the inner necessity by which the palinode qualifies itself, and motivates the turn to talk about talk, is then obscured, as are the ways in which the problem of rhetoric is already established in the palinode's picture of the human condition. We thus lose a clear

understanding of the progress in the discussion, and this in spite of Ferrari's own insistence that progress has occurred (pp. 66-7). It all becomes rather too contingent. We hear that "the very method of analysis and labelling [at 265d ff.] is indeed a genuine and proper philosophic advance over the myth that it devalues" (p. 66). But what is that method exactly? Ferrari's account of it is very sketchy. Other important parts of the dialogue are similarly glided over (for example, the reasons for which Socrates insists on definition in his first speech; the interludes between the first three speeches and the elaborate mimetic irony they embody; the structure of the argument for immortality at 245c6 ff.; the question as to the existence of an "Idea" of the soul at 246a3; the characteristics of the beings that "really are" in the hyperuranian *topos*; the account of *anamnesis* at 249b-c; the sense of the term "eidos" in the discussion of division and collection; the meaning of the term "dialectic" and its relation to "dialogue"). Indeed, we are left very unclear as to why, if Phaedrus is a mere impresario, Socrates so wants to talk with him (for that matter, it's not clear here why Socrates is so eager to hear Lysias' speech). The list is nontrivial, and Ferrari's circumventions rob his account of some of its potential force and clarity.

The transition to the critique of writing also strikes me as insufficiently articulated by Ferrari. I think this is in part because he does not clearly distinguish between dialectic and the *technē* of division and collection. For *Phaedrus* exhibits a third path in addition to mythic and "technical" discourse, namely, dialogue; and the various defects of the *technē* of division motivate both the critique of writing and the praise of a certain kind of speaking. Ferrari's account leaves us confused about what sort of speaking is to be praised even above Plato's written dialogues. We also miss a much more detailed account as to why Plato wrote *dialogues*, and as to how the dialogue form dovetails with the protreptic and meta-philosophic issues Ferrari thinks central here. The indefiniteness of his interpretation reflects, I think, the undue generality of his account of the unifying theme of the dialogue (as Ferrari notes [p. 223], many dialogues could be said to concern themselves with a defense of the philosophic life), as well as the contingency which his account injects into the evolution of the dialogue.

Finally, in light of all the hermeneutical challenges posed by *Phaedrus*, and given the significant current interest (much of it having reference to *Phaedrus*) in the problem of interpretation, a discussion of Ferrari's assumptions about interpretation would have been useful. Naturally, references to "irony" abound in *Listening*, and I shall not echo the standard cant that no "method" for "proving" the presence of so much irony, of so many meanings hidden between the lines, has been supplied. But by the time additional spins to an "already dizzy irony" (p. 59) of his discussion of 262c ff. are offered, the reader may be forgiven for requesting some discussion of interpretive method.

Phaedrus is, of course, surprisingly tough terrain to "cope" with. *Listening* is very much worth keeping in the foreground of any such effort. My comments are offered as by a fellow traveller impressed

by Ferrari's negotiation of a difficult crossing.—Charles L. Griswold, Jr., *Howard University and the Woodrow Wilson International Center For Scholars*.

FISHER, John Martin, ed. *God, Foreknowledge, and Freedom*. Stanford: Stanford University Press, 1989. 351 pp. \$34.50—Some twenty-five years ago the ancient controversy about the compatibility of divine foreknowledge and human freedom came to life again. The relevant papers of those who participated in the debate are scattered over several philosophical reviews. John Fisher has brought them together and added a fifty-page introduction in which he summarizes and evaluates the respective positions.

As Alvin Plantinga reminds us in his paper, in the *De libero arbitrio* III 2, St. Augustine wonders how it can be that we do not sin through necessity although God knows all things beforehand. He was not the first to be aware of the problem. Solutions of the dilemma tend either to deny (or reduce) human freedom or to reject absolute divine foreknowledge (some consider it a perception of human acts simultaneous with these acts). N. Pike asserts that incompatibility is an unavoidable conclusion, unless one takes the reductive Ockhamist approach. This is precisely what M. Adams does when she resorts to the distinction between hard facts and soft facts (hard facts being events *now* observed). But according to Fisher her use of this distinction is faulty. D. Widerker believes that the theological assumption of divine foreknowledge is a real threat to human freedom and suggests a way out close to Molina's solution of a "super-comprehension" by God of the human will. In a following paper he and E. Zemach express their sympathy for the Ockhamist answer: it is sometimes within our power to determine what God believes. J. Hoffmann and G. Rosenkranz examine the distinction between hard and soft facts, while A. J. Fredoso speaks of the necessary *per accidens*. But W. Hasker does not believe that in this way we can solve the problem of theological fatalism. In a long and subtle discussion of the main arguments for incompatibility, Plantinga shows that they fail. In a second paper, W. Hasler lists again the main arguments of the incompatibilists and the reply of the compatibilists who, he believes, have a "soft determinist" conception of free will. This takes us to the next essay by W. P. Alston on alternative conceptions of freedom. The last paper by M. Davies recalls Boethius' theory which attributed to God direct perception of events rather than foreknowledge.

It is refreshing to see how logicians and philosophers rediscover an important but difficult issue of philosophical theology. The authors and the editor deserve our praise and gratitude for making their searching and challenging arguments available in bookform. However, the subject is treated throughout as a logical puzzle. God and man are juxtaposed. No attempt is made at a "metaphysical" study of divine science such as, for instance, Thomas Aquinas presents.

None of the authors tries to define what must be understood by human freedom. Thus this beautifully edited book leaves us with a set of most acute and subtle (although often overlapping) papers which do not take us any closer to a real solution or, if not to a solution, to a meditative reflection on one of the most baffling aspects of the coexistence of a transcendent creator and finite creatures.—Leo J. Elders, *Rolduc, The Netherlands*.

FRANKS DAVIS, Caroline. *The Evidential Force of Religious Experience*.

Oxford: Clarendon Press, 1989. xi + 268 pp. \$49.95—Caroline Franks

Davis here undertakes an assessment of the value of religious experiences as evidence for religious beliefs. She distinguishes this question from that of the veridical character of particular experiences or their value for the person undergoing them or his community. She attends both to the phenomenological variety of religious experiences and the variety of cultural settings in which they take place. She concludes that religious experience can form an important part of the case for what she calls "broad theism"—the belief that there is a "true self" behind the phenomenal ego and that the highest good for a human being is union or harmonious relation with this holy and eternal ultimate reality (pp. 191, 239). Broad theism, she argues, can explain the two most persuasive forms of religious experience—the numinous and the mystical—though it is not enough to ground a living religion.

Franks Davis takes her philosophical principles from Richard Swinburne. She adheres to the principle of credulity and the principle of testimony, which together hold that experience and testimony are to be believed unless reasons are given for suspecting them. In particular, she rejects challenges based on the fact that religious experience is conditioned by its cultural setting. For, as she points out, this is a feature of *all* experience, a feature that frequently assists rather than inhibits accurate perception. (She does not share Calvinist concerns about the all-pervasive noetic effects of sin.) Moreover, there are religious experiences, such as those of children who fail to connect them with the God of their Sunday school instruction, that are as independent of cultural setting as experience can be.

Three questions for further investigation arise from Franks Davis's analysis: (1) Franks Davis is concerned to insist, against reductionist challenges, that people who have religious experiences need be neither deprived nor maladjusted (pp. 203–10). But this argument introduces a troublesome bias into her account. From a Christian point of view, a disposition to discount the Cross is hardly acceptable. But even from a strictly philosophical perspective, there is reason to suspect that those who are at ease in their societies are likely to fail to see important realities.

(2) Franks Davis rejects both naturalistic understandings of religious experiences, in which God causes such experiences only in the

sense in which He causes all other events, and the crude interventionism she associates with fundamentalists. But she fails to explain the "non-crude interventionism" she embraces (pp. 226-7) with any clarity, or even adequately to delimit the mystery involved in God's intervention in the world.

(3) The case for theism to which Franks Davis intends to contribute is cumulative, as is the challenge to the evidential force of religious experience she takes most seriously (pp. 140-2). There is nothing wrong with such arguments: most of the things we believe—and not only about religion—we believe on such grounds. But the standards for good cumulative argument are in great need of further explication if such arguments are to be distinguished from the throwing of as many arguments as possible at one's intended audience in the hope that at least some of them will persuade. We need further discussion of the issue of how a cumulative argument can be more than accumulation of evidence (pp. 108-13), and how personal judgment can interact with evidence to support a conclusion (pp. 235-8).—Philip E. Devine, *Providence College*.

GRACIA, Jorge J. E., and DAVIS, Douglas. *The Metaphysics of Good and Evil According to Suarez*. Metaphysical Disputations X and XI and Selected Passages from Disputation XXIII and other Works. Translation with Introduction, Notes and Glossary. München: Philosophia Verlag, 1989. 294 pp. 98,00 DM—Suarez's *Disputationes metaphysicae*, first published in 1597, is the first systematic treatise on metaphysics in the West, and it summarizes the metaphysical thought of medieval Scholasticism. Gracia and Davis present an English translation of Disputations X and XI which together provide us with a comprehensive analysis of good and evil. The text is not easy to understand for a modern reader. To facilitate its being understood, the translators have added a substantial introduction (pp. 17-101).

Suarez denied the widespread view, which Thomas Aquinas, among others, held, that goodness is desirability. He defines good as the agreeability (*convenientia*) of being. Agreeability is what makes a thing suitable or compatible either to something else, to its own nature, or to both. The difference from desirability is, according to Suárez, that agreeability is prior to desirability (something is desirable because it is good, but not inversely), and poses no relation to the faculty of desire.

Following Scholastic tradition, Suarez characterizes good ontologically as a transcendental property (*passio transcendentalis*). Good and being are convertible, yet the terms are not synonymous: "good" denotes being, but connotes the aspect of agreeability. This places the good as something real in the object, which allows Suarez to preserve the intentional objectivity of value statements, even though good is not a distinct feature of good things. At the same time it introduces a relational aspect into the object, although, strictly speaking, good is not a relation.

The authors hold "that perhaps Suarez dismissed the views of goodness as a feature or a relation too quickly" (pp. 94-5). But it seems to me that they do not pay sufficient attention to the problem that is posed by the transcendental of the good, namely, the problem of the addition to being. Good cannot add a distinct feature or a proper relation because in that case it would no longer be coextensive with being. That which good adds to being is only the connotation that being has the aspect of agreeability (Cf. Disp. X, sect. 1,12).

Suarez understands evil in the traditional scholastic manner as a privation. He is aware of problematic cases such as pain and vice, which seem to be positive realities. In order to dispel this difficulty, he borrows from Thomas the fundamental distinction between evil in itself and evil for another. This approach to the problem of the reality of evil is perhaps Suarez's most important contribution. It is only evil in itself that he conceives as simply privation, evil for another may consist in something positive, being opposed to good not privatively, but as a contrary, which involves a disagreeability (*disconvenientia*).

"The problem of evil" with which contemporary philosophy is mostly concerned is the problem that the existence of evil poses for theists who believe in the existence of an omnipotent, omniscient, and good supreme being. Suarez does not discuss the relation between evil and God in his Disputations, because he did not see the issue as metaphysical. A general feature of his philosophy is the systematic distinction between metaphysics and theology. He addresses the problem explicitly in other works, selections from which have been included in an appendix. A very useful glossary of technical terms concludes the book.—Jan A. Aertsen, *Free University, Amsterdam*.

LACQUE-LABARTHE, Philippe. *Typography: Mimesis, Philosophy, Politics*. Introduction by Jacques Derrida. Edited by Christopher Fynsk. Cambridge, Mass.: Harvard University Press, 1989. xi + 308 pp. \$35.00—This English translation gathers together essays from *Le sujet de la philosophie: Typographies I* (1979) and *L'imitation des modernes: Typographies II* (1986), along with a major essay entitled "Typographie." These essays are an inquiry into the delimitation of mimesis from Plato to Heidegger as representation or imitation "with a character of veri-similitude (the true here being determined in terms of idea or *aletheia*)" (p. 95). Concealed within the Platonic determination of Being as *eidos* is the filiation between "the representation of Being as figure (the metaphysics of *Gestalt*) and *Darstellung*, (re)presentation . . . or 'literary representation'" (p. 59). In uncovering the derivation of *Gestalt* and *Darstellung* from *Ge-stell*, or installation, Lacoue-Labarthe exposes the "ontological power of *poiesis*. . . . Philosophy, then, will have always been a matter of *erection*" (p. 71), that is, of fiction in the sense of installation, which is to say of mimesis as *poiesis*. The threat of mimesis lies in its displacement or "disinstallation of

poiesis," or the productive capacity of representation so that "it proves difficult, if not impossible, to refer the thing thus installed to its truth or Being, to its idea" (p. 85). In the six essays that make up the book, Lacoue-Labarthe turns to Plato, Diderot, Hölderlin, Nietzsche, Reik, Heidegger, and René Girard, and to such topics as tragedy, music, autobiography, and the problematics of individual and national self-identification. In demonstrating how mimesis has determined philosophical thought, Lacoue-Labarthe provokes us into reconsidering our understanding of history and politics.

At issue in Lacoue-Labarthe's examination of mimesis is the "Hegelian dream of philosophy: absolute (in)sight, the subject theorizing its own conception and engendering itself in seeing itself do so—the speculative" (p. 127). This whole discourse of engenderment and fashioning is threatened by mimesis as an "infinity of substitution and *circulation*" (p. 116). Rather than mimesis being a reflection of the idea and, as such, measured by its adequation to an original, it is the displacement of the subject. Against this speculative constitution of the subject, Lacoue-Labarthe locates in the strategy of mimesis a logic of a supplemental representation or mimesis as "an imitation of *phusis* as a productive force, or as *poiesis*" (p. 256).

The Western delimitation of mimesis as specularization, that is, as imitation or reflection, presupposes a theater, a space of exchange or substitution. The exclusion or denigration of mimesis signals a recognition that the logic of mimesis is the logic of *alētheia* as endless withdrawal or desistance, to borrow Derrida's neologism from his introduction, of that which can never resemble itself. When examining the relation of speculative thought to Hölderlin's translations of Sophocles, or the double bind of the Aristotelean definition of art as *technē* (art both imitates nature and accomplishes what nature cannot effect itself), or the paradox of enunciation in Diderot, or the unacknowledged mimetology that governs Heidegger's politics, Lacoue-Labarthe notes that the very structure of mimesis as the supplementation of *phusis* by *technē* determines the logic of identification that governs our concepts of subjectivity, history, and national identity.

In his essay on Theodor Reik, "The Echo of the Subject," Lacoue-Labarthe examines how the possibility of autobiography is linked to repetition as the condition for the appearance of the subject. The relation of tragedy to speculative philosophy is examined in two essays dealing with Hölderlin's translations of Sophocles. In a reading of Diderot's "Paradoxe sur le comédien," he argues that the logic of mimesis is a logic of paradox: "The more it resembles, the more it differs. The same, in its sameness, is the other itself, which in turn cannot be called 'itself', and so on infinitely . . ." (p. 260). The final essay, "Transcendence Ends in Politics," analyzes how "Heidegger's political choice begins (at least) when the Being-in-the-world and the Being-with (or the advent-with) of *Dasein* is thought as a people" (p. 286). Together with the introduction, these essays are essential reading for anyone interested in Heidegger, postmodernism, and the history of mimesis in philosophy and literature.—Joseph G. Kronick, *Louisiana State University*.

LEVINE, Michael P. *Hume and the Problem of Miracles: A Solution*. Philosophical Studies Series, vol. 41. Dordrecht: Kluwer Academic Publishers, 1989. 212 pp. \$64.00—Hume's discussion of miracles in his *First Enquiry* deserves our attention because it combines the two major modern tools used to debunk reasonable acceptance of miracles: the New Science's account of nature and critical history. However, although his conclusion (that belief in the miraculous accounts which found Christianity is unreasonable) is quite clear, the argument he uses to achieve it is not. It is unclear how this argument follows from his earlier positions. At different points it seems redundant, superfluous, excessive, and deficient. Because of the importance of its topic and its peculiar combination of clarity and obscurity, Hume's essay has provoked a tremendous literature.

This new addition to the literature is significant because it addresses both sources of our interest: understanding Hume and understanding belief in miracles. Levine attempts to make Hume's argument internally consistent and consistent with the rest of his thought; it also presents an argument against Hume's final position. Rather than giving another historical study of Hume, Levine gives philosophical analyses of Hume's arguments and presents his own arguments which attempt to solve the problem Hume has formulated. Ultimately, Levine claims that neither Hume's nor anyone else's arguments prove that belief in miracles is necessarily unjustified.

Levine sees Hume's empiricist theory of justification based on a theory of *a posteriori* reasoning as the key to a consistent reading of Hume's *a priori* argument against the possibility of justified belief in miracles. However, Levine remains perplexed by Hume's claim that belief in extraordinary, prodigious events can be justified in the face of this theory of *a posteriori* reasoning. He suggests that Hume can attempt to maintain these two possibilities because he employs indefensible and idiosyncratic conceptions of "miracle" and "law of nature" which illicitly exclude the possibility of a miraculous event. The other basis for Hume's position is shown to be nothing more than an unsupported naive conception of nature as a closed system of causes. After presenting this interpretation and criticism of Hume's actual argument, Levine formulates another set of arguments against justified belief in miracles based on Hume's epistemology. On Hume's principles, no miracle could ever be experienced for two reasons: there can be no impression of a transcendent being, and there could not be the requisite similarity between a transcendent cause and an immanent event.

The second half of Levine's book, although still dominated by Humean topics, turns away from Hume's explicit concern with the possibility of belief in reports of miracles to the issue of the possibility of such an event. Levine's very complex argument begins by arguing that "miracle" is not an incoherent concept and moves to the claim that it would be reasonable to characterize a witnessable event as a miracle when it had certain recognizable features. Levine argues that justifying the occurrence of this event would have to be done according to the same criteria that any other occurrence is justified. He concludes his book by showing that no contemporary normative

epistemology proves the impossibility of justified belief in miracles. Indeed, he states that many Christian believers have been justified in their belief, or at least not irrational because of it (p. 187). However, he certainly does not claim that any of these beliefs is true; no one can *know* that there have been miracles which prove the truth of his religion.

Although this book is nicely argued, it is finally disappointing: it seems misguided and uncritical. The author has not taken into account the complexity of Hume's argument, especially its use of history. Hume is more concerned with *reports* of miracles than with their possible occurrence. And the possibility that the human mind can have unjustified beliefs is more significant for Hume's purposes than determining how such beliefs would be justified. For Levine to think that he has made significant progress toward solving the problem of miracles by concluding that they can be justified but not known suggests that he has unknowingly accepted Hume's final position about the human mind—that its basic beliefs cannot be proved. It seems that we must await further contributions to the literature in order to find a comprehensive and thorough understanding of Hume's essay on miracles.—Patrick Corrigan, *Assumption College*.

MACINTYRE, Alasdair. *Three Rival Versions of Moral Enquiry: Encyclopaedia, Genealogy, and Tradition*. Notre Dame: University of Notre Dame Press, 1990. x + 241 pp. \$24.95—Within the past two decades Alasdair MacIntyre has emerged as one of the most important moral philosophers in the English-speaking world. Through a series of works, *After Virtue*, *Whose Justice, Which Rationality?*, *First Principles*, *Final Ends and Contemporary Philosophical Issues*, and *Three Rival Versions of Moral Enquiry*, he has brought moral discourse back to earth from an abstract, idealized realm in which philosophers limited themselves to the analysis of language and formal arguments or invented imaginary situations which presumably gave direction to affairs in the real world.

MacIntyre noticed and subsequently documented in abundance that philosophers trained in diverse intellectual traditions rarely succeeded in talking to each other. His labyrinthine academic career no doubt provided him with ample experience from which to judge. The academy, he points out, has no shared set of principles on which judgments may be based and consequently parts are not interchangeable between one academic institution and another. In the absence of a shared inheritance there is no common universe of discourse; in the absence of a shared set of first principles there are rival conceptions of rationality at both the theoretical and the practical levels. What an investigator takes to be relevant data and how they are to be identified, characterized, and classified depends upon his theoretical and moral standpoint. It is MacIntyre's contention that, far from being a barrier to rational inquiry, a commitment to some particular theoretical or doctrinal tradition is a prerequisite for advancement.

In *Three Rival Versions of Moral Enquiry*, MacIntyre utilizes three late nineteenth-century intellectual outlooks to illustrate incompatible standards of rationality. His choice of the late nineteenth century was governed by the occasion for which he prepared the volume, namely, the Gifford Lectures of 1988, a series of lectures founded as a result of a bequest by Adam Gifford one hundred years earlier. The first outlook examined is one which Adam Gifford presumably shared, the common outlook of the authors of the ninth edition of the *Encyclopaedia Britannica*. The second is that provided by Nietzsche, who in his *Zur Genealogie der Moral* (1887) drafted an epitaph for the central assumptions of the *Encyclopaedia*. The third is that represented by Leo XIII who in his encyclical letter, *Aeterni Patris* (1879), summoned his readers to appropriate the classical tradition, a tradition preeminently represented in the Middle Ages by Thomas Aquinas, and one which is at once open to modern science and to the testimony of scripture.

In MacIntyre's account, the authors of the *Encyclopaedia Britannica* assumed that all educated persons subscribed to a single conception of rationality. The narrative structure of the *Encyclopaedia* is one dictated by a belief in the progress of reason. Henry Sidgwick's article on ethics, for example, presupposes that Plato, Aristotle, Hobbes, Spinoza, and Kant are all offering accounts, albeit rival accounts, of the rational status of one and the same timeless subject matter (p. 28). Confidently holding that the unity of inquiry mirrors the unity of the cosmos, the Encyclopaedists held that the outcome of successful inquiry is a comprehensive, rationally uncontestable, scientific understanding of the whole. Although the results of inquiry through the course of centuries may at times have been uneven, nevertheless, it may be said that in spite of its ruptured and discontinuous course, it has been a progressive one.

Nietzsche was to challenge this optimistic assessment of progress. Whereas the Encyclopaedist aspired to displace the Bible as a canonical book, Nietzsche intended to discredit the whole notion of a canon. He denied that things possess a constitution in themselves apart from interpretation and subjectivity. The academic mode of discourse, Nietzsche thought, tends to mask this fact. In spite of the appearance of objectivity, scholarship expresses little more than attitude or feeling. There is no truth as such, there are no rules of rationality; rather, there are strategies of insight and strategies of subversion. Whereas the Encyclopaedist would recognize a set of values which have emerged from and can be shown to be superior to the pre-Enlightenment assessments, Nietzsche would accept no "givens" uncritically, not even post-Enlightenment positions. He would have us challenge the rationally structured so that its subjective character is recognized. As subjective, it can be replaced without loss by something radically new. There are no impersonal timeless standards. For Nietzsche the type of rationality professed in the Ninth Edition is still too hospitable to Christianity. "I fear," wrote Nietzsche in *Götzen-Dämmerung*, "we are not getting rid of God, because we still believe in grammar." That is, we still believe that language represents an order of things by means of a conceptual

scheme and a logic of identity and difference. In MacIntyre's judgment, Nietzsche is saying "not just that theism is in part false because it requires the truth of realism, but that realism is inherently theistic" (p. 67).

Both the Encyclopaedists and the genealogists denigrate the past, the former because of their doctrine of progress in which the past is mere prologue, and the latter because of its war with the burdensome past which yet haunts the present. For Leo XIII, the past is neither mere prologue nor something to be struggled against. Rather it is that from which we have to learn if we are to advance both speculatively and practically. The contributions of conflicting traditions have to be scrutinized and evaluated. Theoretical inquiry, when properly conducted, leads the student to engage the best minds of the past on issues which have to do with the ends of human life, the intellectual and moral virtues which lead to right action, and the laws which order human relationships so that men and women may attain these virtues.

MacIntyre's analysis of the three traditions leads him to a marked implication for the university. Finding that the contemporary liberal academy, without recognizing its own Enlightenment bias, has excluded rival modes, that is, the genealogical and the Thomistic, MacIntyre suggests that the university should be a place of constrained disagreement in which the teacher has the dual obligation to advance inquiry within a given tradition while controverting alternative positions. The student exposed to multiple readings of a text is better positioned to understand and defend a viewpoint and to make concessions when required by commonly acknowledged principles and data.

MacIntyre is not without hope that some commonality can be achieved, but he insists that the condition of successful inquiry is the recognition of fundamental difference and the need for integrity in discourse.—Jude P. Dougherty, *The Catholic University of America*.

MALONEY, J. Christopher. *The Mundane Matter of the Mental Language*. Cambridge: Cambridge University Press, 1989. xxvii + 274 pp. \$39.50—Maloney undertakes to defend Sententialism, "a version of the Representational Theory of the Mind . . . that favors treating mental representations as if they were sentences encoded in the central nervous system . . ." (p. 9). Arguing initially from perceived similarities between beliefs and declarative sentences and a desire to retain the belief/desire model of explanation, the author disputes especially those who reject "folk psychology" as either an account of what there is or an explanatory model of behavior.

Maloney's "as if" in the definition above makes his thesis sound weaker than it is, for he holds that the brain literally contains entities that have both a syntax and a semantics. These entities could presumably be examined at leisure in principle; the thesis is not the almost trivial one that the brain has a "program" for producing sentences (in the usual sense) under certain conditions. These "sentences" in the brain are just what we call mental states. More precisely, the various features of mental states are various properties of

and relations among these "sentences"; and much of Maloney's book is given over to identifying those aspects of, including the relations among, these "sentences" that *are*, in his view, the defensible aspects of mentality, including rationality, sensation, consciousness (as subjectivity), moods, qualia, and intentionality.

Maloney develops his theory in considerable measure by useful and detailed analyses of theories and replies to objections to Sententialism of, among others, Block, Burge, Patricia Churchland, Paul Churchland, Dennett, Dreyfus, Fodor, Putnam, Searle, and Stich. Among the objections that are discussed at length and for the most part effectively disposed of are: that Sententialism requires an infinite number of "embedded agents" to do the job of interpreting the "sentences"; that Sententialism cannot individuate beliefs in a way sufficient to their proclaimed function of explaining behavior; that Sententialism requires an infinite number of discrete brain states because a person has an infinite number of beliefs (the "frame problem"); that Sententialism cannot account for the role of context in the explanation of rational behavior; that Sententialism has difficulty in distinguishing representational from nonrepresentational states of an organism; that Sententialism cannot account for irrational behavior; that Sententialism cannot adequately distinguish intentional behavior from "brute activity" (the problem of "causal waywardness"); and that Sententialism cannot account properly for the differences and similarities in the behavioral and cognitive abilities of children and animals on one side and adult humans on the other.

A valuable discussion of Searle's refutation of the functionalist conception of intentionality by his well-known example of the man who "speaks" but does not understand Chinese leads Maloney (unlike Searle) to a causal theory of intentionality in which sensory states play a special role. Maloney holds further that intentional states constitute a (physical) natural kind, a supplement that is intended, in part, to head off some familiar objections to causal theories concerning the termini of sequences that are not, but according to those theories otherwise would be, referential.

One may well question Maloney's starting place and especially his only too widely-held assumption that beliefs (as contrasted with the states that constitute one's stream of consciousness) are literally intentional states. And of course many will be unconvinced by his or any account of intentionality that does not recognize the intentional connection as an ontologically fundamental entity unlike any other. While such a person can appreciate fully whatever science has to tell us about the human mind, he or she could not possibly agree with Maloney's prophecy that "mature neurology, if not some other physical science, shall someday lay bare the nature of intentionality" (p. 31).—Laird Addis, *The University of Iowa*.

MCGINN, Colin. *Mental Content*. Oxford: Basil Blackwell, 1989. iv + 218 pp. \$34.95—Concerned with delineating the nature of mental content and explaining its role in knowledge and behavior, this book is divided

into three long chapters, discussing respectively the *location*, *utility*, and *basis* of content.

In the first chapter McGinn argues against the traditional Cartesian "internalist" conception of mental content as occurring independently of the external world, defending the "externalist" thesis that states of mind are "determined," "individuated," or "constituted" by their relation to entities in the outer world. Distinguishing strong from weak externalism, the former demands "that a given mental state requires the existence *in the environment of the subject* of some item belonging to the nonmental world," while the latter merely insists "that a given mental state requires the *existence* of some . . . non-mental" item (p. 7) in the world at large. He concludes that "weak externalism is true of all representational contents," "strong externalism is true of only a proper subset of mental contents," while there are nonrepresentational mental phenomena "for which not even weak externalism is true" (p. 100).

In accordance with naive realism (cf. pp. 114-6), mental contents contain objects in the immediate environment of the individual (desks, computers, or chairs) or more remote objects (planets, stars, or atoms), while purely subjective states (such as pains and nausea) are not related to any external objects at all. Unlike traditional views, "the mind is not itself located in the head, though it has its mechanical basis there" (p. 210), consisting of a "system of relations between the subject and the worldly objects of his mental states" (p. 29).

In the second chapter McGinn turns to the *utility* of mental content. Rejecting reductive and eliminative materialism, he assigns a teleological role to content in facilitating biological adaptation. If the contents of mental states are determined by their relation to what exists in the world, this will promote survival, explaining why the capacity for realistic representation evolved as it did (cf. p. 167).

In the concluding third chapter McGinn describes the *basis* of content. Rejecting the standard view that mental contents are organized by sentential or propositional structures, he turns to "the theory of mental models" introduced in 1943 by Kenneth Craik. Agreeing with Dewey that thinking is essentially a predictive, problem-solving activity, Craik however conceived of the mind as "a *simulation engine*—a device that mimics . . . replicates . . . parallels reality" (p. 176). If thought "works by modelling because prediction depends on simulation," then "the mechanism of prediction is also the mechanism of intentionality" (p. 196), explaining why McGinn believes it is more basic than syntax and semantics.

Despite the author's imaginative analyses, the book has two main weaknesses. First, while externalism, like naive realism, has a certain commonsense plausibility, it does not offer an account of the status of the perceptual macroworld, or the difference between this world and the scientific microworld. How can the observable features of objects be "instantiated" by nonmental objects while also constituting mental states (cf. p. 42)? Perceptual objects being "spatially 'out there'," McGinn's account requires "that the mind be able to reach out (across space) and incorporate into itself what lies outside it" (p. 20). Unlike Kant, who made space a transcendental precondition of

experience to explain how the perceptual world can be "empirically real but transcendently ideal," McGinn offers no such explanation.

Second, I think McGinn's claim that mental modeling provides a better explanation of reference or intentionality than the sentential theory (cf. pp. 196-7) has little to support it. While there are numerous psychological and linguistic studies to show how children learn to use words to stand for objects and compose sentences, there is no similar evidence for the modeling theory. Although McGinn on occasion refers to empirical inquiries (such as Marr's book on *Vision*), like most analytical philosophers his argument is based largely on "other worlds" analyses and examples of "envatted brains."—Richard H. Schlagel, *The George Washington University*.

REESOR, Margaret E. *The Nature of Man in Early Stoic Philosophy*. New York: St. Martin's Press, 1989. ix + 179 pp. \$45.00—In this compact work consisting of ten chapters and two appendixes Reesor reconstructs and represents the early Stoic doctrine concerning the nature of the human being, that is, the view of man set forth in the writings of Stoic philosophers from Zeno, who came to Athens in 312 B.C., to Antipater of Tarsus, who was in Rome before 133 B.C.

One would have thought, at first blush, that Reesor had undertaken a herculean, not to say an impossible, task. Precisely because the Stoics believed the individual human being to be a *sui generis* quality or an aggregate of individual qualifications, essential and accidental, embedded in unqualified matter (discussed in detail with references to the current literature in chapter 1), one wonders what sense (or reference) the expression "the nature of man" could have had for the Stoics. More concretely put, consider the conclusion of Reesor's investigations in chapter 1: "the individual, Socrates, possessed an individual quality, which presumably included a very large number of individual qualifications, both essential and accidental, and . . . this individual quality was a corporeal cause of the attribute 'being Socrates' and of the predicate 'is Socrates' in a proposition, such as 'This is Socrates'" (p. 21). Presumably the same claim might be made, *mutatis mutandis*, of the individuals Plato, Aristotle, and Chrysippus. But if each is so suffused with the individual quality and individual qualifications, what could be the human nature in which they share? It would seem that the nature in which Socrates shares, if any, is precisely "being Socrates," which, as it turns out, is a kind of universal, because on at least one interpretation (one shared by Reesor, incidentally) a number of individual Socrateses, one for each of the recurring worlds in Stoic cosmology, share in "being Socrates." But, transcending his essentially individual qualification, Socrates, on Reesor's reckoning, along with Plato, Aristotle, Chrysippus, and other human beings, all "utter articulate sounds, form presentations, make assent to presentations and propositions, and direct their impulses towards the objects of their desires" (pp. vii-viii). And they all share in a prescriptive and cognitive *logos*. Reesor discusses each of these

features, common to all essentially and exceedingly individualistic human beings, in chapters 3-10, which follow a chapter on Stoic ontology. Chapter 9, which more than any other in Reesor's work makes one understand why serious minds in antiquity might have looked twice at Stoic doctrine, contains a particularly rich discussion of the intellectualistic view espoused by the early Stoics that the emotions are judgments.

I have not, of course, checked each and every of Reesor's many references to the current literature, but I am somewhat bothered by two of them, which I happened to have examined recently in another context. Reesor cites Paul Moraux's *Der Aristotelismus bei den Griechen* (vol. 1 [New York: Walter De Gruyter, 1973]), pages 10-16, in support of her judgment that "we cannot say with any assurance that the exoteric [*sic*] works of Aristotle were available to Zeno in Athens" (p. 1). (Here I think Reesor must mean "esoteric," for Aristotle's exoteric works were published in his lifetime and so were generally available.) But in the pages cited Moraux argues precisely for the claim that Aristotle's esoteric works *were* accessible to those individuals interested in them in the first generation after Aristotle's death. Secondly, when Reesor introduces the Stoic doctrine of eternal recurrence (according to which the cosmos burns up and runs its course again every 10,000 years), she cites (p. 8, n. 22), among other sources, Jonathan Barnes's "La doctrine de retour éternel" (*Les Stoïciens et Leur Logique* [Paris: Librairie Philosophique J. Vrin, 1978], pp. 3-20), but she fails to discuss, as would have been appropriate in the context, (1) Barnes's ascription of Leibniz's law to the Stoics, in accordance with which the view that Reesor ascribes to the Stoics, that in each cycle there is "a new individual with the same characteristics and experiences" (p. 9), is incoherent, and (2) Barnes's carefully laid out *reductio ad absurdum* of the Stoic doctrine of eternal recurrence.—Josiah B. Gould, *State University of New York at Albany*.

ROCKMORE, Tom. *Habermas on Historical Materialism*. Bloomington: Indiana University Press, 1989. xii + 202 pp. Cloth, \$37.50; paper, \$14.95—This is a book about Jürgen Habermas's attempt to replace historical materialism with communicative action as a social theory that is not external to society in the manner of traditional theories but is at work within it as an agency for human freedom. However, Rockmore is not so much interested in the genealogy of Habermas's theory of communicative action as in the complicated and sometimes confusing story of Habermas's own struggle with historical materialism as a way of accounting for social phenomena. The concept of historical materialism is itself very far from clear, and Habermas's own relation to it is highly unstable. Rockmore maps out the itinerary for Habermas's "reading of Marx and Marxism as a process in four stages, leading to his own theory of communicative action, consisting of the interpretation, critique, reconstruction, and rejection of historical materialism" (p. 169). In addition, Rockmore's book is in cer-

tain unsystematic ways a critique of Habermas's reading of Marx and Marxism; that is, it is not so much a defense of historical materialism as a criticism of the incompleteness of Habermas's efforts to get beyond it—an incompleteness that amounts, in Rockmore's view, to a backsliding into idealism, or at least into a German idealist theory of reason, including a restoration of the transcendental subject.

Reason is the main issue. What Habermas wants is a conception of society whose foundations are both material and rational, as if in a wedding of Marx and Kant. The point is to save philosophical reason, understood as critical self-reflection, from the antirationalists (Nietzsche, Heidegger, Derrida, Bataille, and Foucault), and on this score Marx and Marxism, on Habermas's later view, are of no help (one thinks of Adorno's *Negative Dialectics*). Early Habermas understands historical materialism as critical philosophy, but increasingly Habermas grew doubtful of Marxist notions of ideology, crisis, and value and became convinced that "Marxist monism does not permit an adequate grasp of reason" (p. 116). In order to produce a social theory in which rationality, in the form of a critical or transcendental theory of dialogue as uncoerced agreement, is, in some very traditional sense, foundational for human culture, Habermas is willing to give up basic Marxist notions of praxis as intervention in concrete political situations. In Rockmore's words, "Since Habermas' understanding of communicative action aims only, or at least mainly, at an adequate social theory, it does not share Marx's concern to substitute communism for capitalism through a social revolution if necessary; in Habermas' writings, the newest form of critical theory apparently abandons the aim at fundamental social change, for which it substitutes the goal of viable social theory supposedly intrinsic to, but not attained by, historical materialism" (pp. 165–6).

Rockmore is meticulous in his attention to the subtle changes in Habermas's understanding of Marx and Marxism, although there is very little close attention to the actual texts of Habermas's readings. Rather, Habermas's arguments are reconstructed in Rockmore's own language, which is not always as clear and compelling as one might wish for. However, his book is a valuable study of a side of Habermas's thinking that has not been the subject of much sustained attention.—Gerald L. Bruns, *University of Notre Dame*.

RORTY, Amelie O. *Mind in Action: Essays in the Philosophy of Mind*. Boston: Beacon Press, 1988. 378 pp. \$27.50.—This is a collection of essays dealing with such topics as personal identity, fear of death, self-deception, akrasia, jealousy, the virtues and their vicissitudes, and practical reasoning. Despite the wide range of these topics, the author's method and style yield a strong sense of continuity. Each essay calls attention to the historical contexts in which human actions, virtues, and vices have been defined, and to the psychological complexities that have often been neglected in more exclusively epistemological

studies of reason and emotion. The book is divided into four sections. "Persons and Personae" characterizes as a philosophical dream the project of deriving normative political and moral principles from a single foundational conception of personhood. Intractable debates about moral issues tend to arise whenever the practical contexts governing diverse definitions of personhood are blurred. We may learn more about such practical contexts, and therefore about the uses and abuses of the concept of a person, by tracing the literary representations of human agency in the characters, figures, selves, and individuals depicted in Biblical narratives, Greek dramas, medieval mystery plays and Chaucerian tales, romantic and social novels, and twentieth-century short stories, plays, and science fiction.

The essays in "Psychological Activities" and "The Wayward Mind" have as their goal to undermine the traditional distinctions between cognitive, motivational, and affective activities, and between psychological attitudes and physiological processes. Philosophers inappropriately attempt to reconstruct all mental activities on the model of propositional thought. This method obscures the ways in which cognition sometimes functions in the service of the passions. Moreover, the priority that it assigns to detached rationality makes for an excessively negative appraisal of emotional commitments and resistances. Self-knowledge is no guarantee either of wisdom or of goodness. Attitudes that appear as deviant for philosophies of mind that construe the emotions as noncognitive disturbances take on a richer sense in Rorty's contextualized approach. While Epicurus was surely right, for example, to claim that our lives would be calmer and happier if we could eradicate our anxious metaphysical fear of death, his emphasis on affective detachment suppresses a natural and healthy reaction appropriate to embodied rational beings. Extrapolating on the Kantian argument that we inevitably and necessarily tend to apply categories beyond the limits of our experience and are thus capable of rational reflection on experience, Rorty suggests that the allegedly irrational attitude of anxiety with regard to one's own death may be a condition of such transcendental reflection. Instead of treating self-deception and weakness of will as completely irrational mental states, Rorty regards them as socially structured processes which sometimes enable fragile human beings to survive. Attempts to explain away self-deception as nothing more than ignorance or compartmentalization are ultimately unconvincing. Self-deception is an irreducible phenomenon. The condition of its possibility is the co-existence of two theoretically incompatible but practically conjoined pictures of the self. On the one hand, to be a self is to be capable of reflexive appraisal of one's activities. On the other hand, the self is composed of subsystems whose integration is a task rather than a given. Self-deception flourishes in the intermediate area of tension between the presumptuous goal of panoptical evaluation and the reality of imperfect integration. It does not follow that self-deception is justifiable. It is simply very human.

The final section, "Community as the Context of Character," discusses contemporary efforts to retrieve an ethics of virtue, as opposed

to an ethics of rules and principles. Aristotle described practical wisdom as the ability to discern and to accomplish what is best in complex and ambiguous situations. The person of practical wisdom sees what should be seen, desires what is worth desiring, and acts with a sureness and elegance that reveals excellence of character. Hobbes transformed this practical wisdom into a calculus of means and ends, unrelated to excellence of character, and motivated only by self-interest and that most reasonable of passions, the fear of violent death. It would be too facile a solution, Rorty argues, to claim that Hobbes's account is simply mistaken. Our modern sensitivity to the limitations of the political and social practices that shaped the Greek sense of virtue commits us to a critique of those practices. We now know that classifications of the virtues and theories of moral discernment are always politically laden. We have learned too that communities may function both as promoters and as corrupters of virtue. Rorty concludes that the best way to examine the interaction between moral visions and political agendas is to describe in concrete detail the daily consequences of the practices and institutions that they engender. Moreover, it is dangerous to give precedence to any "master virtue" such as charity, or magnanimity, or justice, or Kantian good will. The wiser course is to adopt a checks-and-balances solution which defines the virtues as a set of supportive and complementary traits. Aristotle was right, therefore, to have found the key to moral living in *phronesis*, which he understood as a complex and balanced set of skills, capacities, and traits. Our modern sense of historicity requires that one of those traits should be a suspicion of the political implication of established practices, and that another should be an imaginative openness to new practices. Like ethical living, ethical philosophy also requires a set of opposed but complementary virtues. It needs the intellectual virtues of precision and clarity, but it also needs the wisdom to know when to settle for vagueness. This book wisely finds the key to ethical action in the vague but balanced goal of achieving the mean between extremes.—Richard Cobb-Stevens, *Boston College*.

Duns Scotus' Political and Economic Philosophy. Latin edition and English translation by Allan B. Wolter. Santa Barbara: Old Mission Santa Barbara (2201 Laguna Street, Santa Barbara, CA 93105), 1989. x + 111 pp. Cloth, \$25.00; paper, \$10.00—This book is a critical edition based on the Assisi and Merton College manuscripts of Scotus's question on restitution of ill-gotten goods (*Ord.* IV, d15 q2). The question, entitled "Is one bound to restitution who may have unjustly taken or retained something belonging to another, so that he could not be truly penitent without making such restitution?" is theological in nature and pertains to Scotus's treatment of the sacrament of penance, but it provides him the occasion to set forth his philosophical theories of the origin of private property, political authority, and the ethical rules

governing a wide variety of business transactions, especially loans. It is in the latter sections of the question that Scotus treats of usury. The text is preceded by a detailed and very interesting historical introduction by Wolter which describes the struggle between King Philip the Fair of France and Pope Boniface VIII and how this political context affected the life and career of Scotus himself. Scotus reflected on the origin of the state at a time when some claimed that all political authority came through the pope, while others defended a king's right to resist a pope when necessary for the common good. But according to the Subtle Doctor, political authority is derived from the consent of the community. Rulers or legislators have the right and duty to regulate economic transactions between individuals for the sake of the common good.

As a Christian theologian, Scotus believed that the first human couple had been created by God in a "state of innocence" from which they fell by sin. He follows Augustine in saying that in a state of innocence all goods would be held in common; there would be no private property. For Scotus this is natural law. Because nobody was greedily inclined to use more than he needed, there was no reason why someone should be prevented from using whatever useful thing he happened upon because it was already owned by someone else. Each person would have used earthly goods only as much as was necessary for their proper purpose, the sustenance of human life and peaceful association in society. But after the fall of man into sin, the natural law that goods be held in common was revoked. There would be greedy people who would take too much of the earth's goods with the result that others would lack necessities. Therefore it is according to right reason and for his own protection that everyone should have the right to hold something back for his exclusive use.

Thus private property was instituted after sin and greed entered human society and history. It is not the natural law that prescribes private property, for the natural law which originally prescribed common ownership is incapable of determining opposites. Nor does divine law prescribe private property. Scotus cites a text of Augustine commenting on the psalm verse, "The earth is the Lord's and the fulness thereof." Augustine's conclusion is that men, not God, divided up the earth into private property. Though human reason naturally apprehended that things should be parcelled out under the circumstances of sin and greed, it is better to say that it was not natural but positive law which divided up the goods of the earth.

Positive law is made according to right reason by someone possessing legitimate authority in a community. Scotus finds that there are two legitimate authorities, paternal and political. Political authority arose when people came together to form cities and discovered that they needed someone to direct them. They thereupon chose a ruler or dynasty by common consent and election. It is such legitimate authorities which prudently and rationally determine by positive law that goods should be divided up into private property.

The interrelations of natural law, human reason, positive law and the divine will as they bear on the ethics of property are interesting

in this question. Scotus says that natural law cannot determine opposite courses of action in response to changing circumstances; for Scotus, inability to perform opposite actions is characteristic of nature and natural agents in general as opposed to will. Here it would seem that natural law, which prescribes common ownership, is unable to cope with the unnatural circumstance of there being greedy people in society. Therefore human reason must deliberate and find a new way, private property, to assure the purpose of earthly goods. But ultimately the authority of the state, which is based on common consent, is needed in order to divide up that which was given to all in common. Finally, Scotus believes that divine law did not do the actual apportioning of goods to private individuals. At *Ord.* I, d47q un. (Vat. ed. VI: 381–385) Scotus has a rudimentary phenomenology of will-acts which allows him to distinguish divine permission from prohibition and command. Presumably in the case of the state's division of the goods of the earth, Scotus was tacitly assuming divine permission though there was no positive command.

The translation of Scotus' difficult Latin is typical of Wolter's style: not perfectly literal, interpretative in some places, but not a paraphrase. Some readers may prefer different interpretations of some particularly obscure passages. "St. Louis XI" on page 13 of the introduction should read "St. Louis IX." The book should be read in conjunction with the texts translated and edited by Wolter in *Duns Scotus on the Will and Morality* (Washington, D.C.: CUA Press, 1987).—Ansgar Santogrossi, *Mt. Angel Seminary, St. Benedict, Oregon*.

SHEROVER, Charles M. *Time, Freedom, and the Common Good: An Essay in Public Philosophy*. Albany: State University of New York Press, 1989. xiii + 314 pp. Cloth \$59.50; paper \$19.95—Fifty years ago John Dewey asked: "What is freedom and why is it prized?" Charles Sherover raises that question again and answers it with the help of the theoretical traditions of phenomenology, existentialism, American pragmatism, and British idealism, which he relates to the traditions of civic-spirited republicanism from Greek antiquity to the American Founding. His ambitious presentation of a "systematically developed public philosophy" confronts a world (much unlike Dewey's) experiencing an "accommodation with the universal appeal of freedom," yet one still lacking theoretical clarity about the grounds of that appeal and the character of the institutions that respond to it. Sherover's is a timely and novel defense of liberalism that (1) exposes weaknesses in contemporary liberal thought and practice, (2) attempts to define a new way between the libertarian, Kantian contractarian (Rawls), and communitarian (and anti-Kantian) alternatives that dominate discussion today, (3) draws learnedly on a wide range of sources in the Western heritage of political and moral reflection in this effort, and (4) grounds its critical and positive discussions in an original theory of freedom that employs a Heideggerian analysis of the finite

temporal horizon of human existence, with its dual character of dependence on a determinate (yet reinterpretable) past and openness to an indeterminate (yet pressing) future.

In spite of the affinity with Heidegger, Sherover relies, without a distrust of "ontotheological" foundations, on the central post-Socratic traditions to support his account of freedom as a natural need, constitutive of human rationality. He claims that as a result of two thousand years of "often painful development," beginning in the Athenian *polis*, a common human future is emerging based on Western ideas of "freedom, individuality, self-rule, divided government, the wisdom of fragmenting power while still learning how to use it, the virtue of a middle-class society, and a socially responsible free enterprise system to sustain it" (p. 296). In practical terms his vision of democratic (but not simply majoritarian) government for the common good derives from Aristotle, Montesquieu, the American Constitution, and the moderate social welfarism of T. H. Green. But Sherover argues that this vision is not defensible on the grounds provided by contemporary liberal thought, which is either "atomistic" (neglecting the individual's rootedness in particular histories and his natural membership in society, not derivable from a rational calculation), or—for the most part unavowedly—authoritarian (seeking to equalize the final condition of all individuals through legislative-bureaucratic schemes that subordinate individuals to groups and that endanger inventiveness and initiative).

Indeed, Sherover argues that no liberal philosophy has yet adequately met the dual challenges of relating abstract rights to concrete historical obligations, and of distinguishing freedom from equality. The necessary *specificity* of rights (which are thus never "absolute") derives from their relation to an inherited past of custom and shared beliefs, and the necessary *tension* between freedom and equality derives from the relation of free activity as self-determination to an open-ended future (the latter being an essential condition for human individuation and occluded by legislating "equality of outcome"). Sherover's reconciliation of a Burkean emphasis on historical rights with a more Kantian universalistic (and rational) individualism is, as he notes, reminiscent of T. H. Green. But Sherover's most original claim (developing thoughts in Royce and the Heidegger of *Sein und Zeit*) is that sound liberal thought and practice avoiding individualistic and communitarian failings must rest on an insight into freedom as temporally conditioned. The temporal analysis offers the best answer to why freedom is prized above all other ends (health, power, wealth, equality, and happiness), and why it must be protected. The desire for freedom is the fundamental "yearning to be masters of our own time" (pp. 85–7), and Sherover argues such mastery is the "enabling condition" for all rational and evaluative activities of human beings (p. 235). Its implications are not purely individualistic: that yearning ties all human beings to shared historical traditions, while making them distrustful of any authorities claiming to have unlimited power over the human future and transhistorical insight into history's goal (for all human experience reveals the finitude of human power over

time). "Loyalty" to the temporal conditions of our humanity is loyalty to the human essence, and being inseparable from "faith in freedom" (a kind of civil religion), it issues in the theory and the practice of sound government.

This provocative speculation on freedom offers a new account of the moral psychology of modern liberalism (disclosing possible connections between the moral psychologies of Locke, Rousseau, Kant, and Heidegger). One could use it to develop reflections on other human ends—the search for the divine, the pursuits of beauty, heroism, and erotic satisfaction—all of which presuppose freedom in some sense, but which may well compete with freedom itself, taken as an end. Perhaps Sherover could say more about why other ends are so often chosen over freedom. Also along more critical lines, one could ask whether the rootedness in tradition does not bring about tensions within Sherover's liberalism between cultural "pluralism" and the emphasis on individual freedoms. Whether the desire to "master time" may not contain implicitly certain paradoxes (of seeking "closure" and maintaining "openness" in the experience of history) that point to the Nietzschean-Heideggerian criticism of Western metaphysics and technology (and thus of liberalism), is another issue Sherover's defense of liberalism would ultimately have to address. When taking up this question, Sherover should also define more clearly the relation of his civic republicanism to the tradition of "natural rights" from which he seems to distance himself (as certainly a Heideggerian must). In any event, his essay is an important reformulation of the principles of liberalism in the light of traditions and reflections generally ignored in contemporary political philosophy, and it will surely broaden the scope of current debates.—Richard L. Velkley, *Stonehill College*.

SIEBRAND, H. J. *Spinoza and the Netherlands. An Inquiry into the Early Reception of his Philosophy of Religion*. Assen, Nederland: Van Gorcum; New Hampshire: Wolfeboro, 1988. x + 239 pp. Dfl 69,50—Omnia quae sunt, vel in se, vel in alio sunt. "Everything which is, is either in itself, or in something else." With regard to the history of philosophy the either/or in this first axiom of Spinoza's *Ethics* has to be read inclusively. The works of philosophers have to be studied in themselves, but also in the works of contemporaries, adherents, and opponents. Siebrand's investigation into the early reception of Spinoza's philosophy of religion should therefore be welcomed. There exists only scarce material on the Dutch contemporaries of Spinoza. The study may therefore give further insights into the development of Spinoza's thinking as well as the general background of the problems which he so ardently tried to solve. This last objective can justify the approach which Siebrand chooses in the first part of his book, namely to discuss both the adherents and the opponents by using "the method of logical reconstruction, with emphasis on the reciprocal relations between their views on Spinozism and general philosophical

and theological questions in the seventeenth century" (p. ix). A defense of this method is promised in the second part of the book by means of validating a theory of reception.

Part 1 starts with a short view of Spinoza's philosophy of religion, concentrated on the *Amor intellectualis Dei*. In four pages Siebrand expounds his theory of Spinoza's concept of God. He rejects the identification of God and nature, because God thinks. His argument is not very well put and he fails to explain what should be understood by "thinking" in this context. The conclusion that Spinoza adhered to the belief of a personal God remains therefore questionable (p. 6).

After this introduction, Siebrand starts with a discussion of some early Spinozists: Koerbagh, Balling, Jelles, and Cuffeler. He closes the section by summarizing some "other voices." Then he proceeds with the opponents, especially Van Velthuijsen, Wittich, Colerus, and again some "other voices," among whom Bredenburg is placed. He finishes part 1 by taking a short look at the beginning of the eighteenth century.

Most of the names mentioned are well known and the question is whether Siebrand succeeds in fulfilling the promises given with the formulation of the method. The answer must regrettably be negative. Siebrand offers a series of arguments on isolated questions. His discussions are sketchy and he often jumps to conclusions, making use of the argumentative structure "post hoc ergo propter hoc" (for instance, with regard to the relation between Spinoza and Koerbagh [pp. 22-4, 184], and with regard to Balling's alleged mysticism [pp. 27-9]). Because of the rather schematic and rationalized reproduction of both the opponents and the adherents, a better understanding of the general philosophical and theological questions of that time is lost. Moreover, the historical notes on the intricate theological and political situation are mostly inaccurate and confused (for instance, concerning Coccejanism [pp. 68-73]). The selection of the adherents and the opponents remains also unclear. Astonishingly, L. Meyer, one of Spinoza's closest friends and the writer of "*Philosophia Sacrae Scripturae Interpres*" (1666), is not given any special attention. The opposition to Spinoza from Burgh and the Roman Catholic Church seems to be compiled out of secondary literature (pp. 138-47).

As a whole, the book does not deliver what it promises to do. Two points can be made to clarify this. Firstly, Siebrand has laid main emphasis on the *Ethics*, while Spinoza's philosophy of religion was made public and received its first and most important attention from the *Tractatus Theologico-Politicus*. This book had a tremendous impact in the "Republic of the United Provinces." Its central plea for necessary freedom of philosophy and religion in a peaceful state was highly controversial in the struggle between the Calvinists and the libertine tradition. Secondly, the historical question of early Spinoza-reception cannot be dealt with by means of constructing a theory, as Siebrand has tried to do. A profound understanding of Dutch Cartesianism is necessary. The second part of his book is not only at variance with the first part, but it also defeats itself if one realizes the abundance of complex religious, philosophical, and political debates in Spinoza's time.—Evert van Leeuwen, *Free University, Amsterdam*.

SMITH, David W. *The Circle of Acquaintance. Perception, Consciousness and Empathy*. Dordrecht: Kluwer Academic Publishers, 1989. xvi + 252 pp. \$59.00—In this book, David Smith develops a theory of acquaintance or direct awareness against the background of a general theory of intentionality which was worked out in his well-known book (co-authored by Ronald McIntyre) *Husserl and Intentionality*. This theory of acquaintance brings together a theory of perception and a theory of demonstratives by locating a demonstrative element in perception. Acquaintance is construed as an intentional relation involving an indexical content or an indexical mode of presentation of something in one's presence. The classical theory of intentionality according to which the content determines the object fails here, for in this case the object is determined by both content and context. David Smith argues that the opposition between internalism (intentionality is to be explained solely by the internal content of an experience) and externalism (intentional experiences also essentially depend upon contextual features including causal and cultural factors) breaks down in the case of acquaintance. The general theory of acquaintance that is developed is then applied to three typical cases: perceptual awareness, self-consciousness, and awareness of the other by empathy. The central core of the theory of perceptual acquaintance is that its object is presented, not *via* a descriptive content, but rather *via* a demonstrative sensuous presence of a singular object. With regard to self-consciousness, David Smith distinguishes between two roles of the content "I": as a subject-content in "I think . . ." and as an object-content in "I am angry." In the former, the self is not presented but given only in the background; in the latter, it is presented and there is a genuine acquaintance with it. Likewise, with regard to empathy, Smith distinguishes between empathic judgment, empathic identification, and empathic perception. Of these, only the last is an acquaintance. This occurs when I see before me a grieving person as grieving, so that I see her sorrow in her face.

The book, in this reviewer's opinion, makes an important contribution to phenomenology of knowledge.—J. N. Mohanty, *Temple University*.

SPARIOSU, Mihai J. *Dionysus Reborn. Play and the Aesthetic Dimension in Modern Philosophical and Scientific Discourse*. Ithaca: Cornell University Press, 1989. xiii + 317 pp. \$36.50—Spariosu, a professor of Comparative Literature at the University of Georgia, is really a philosopher of culture. In this book, in his earlier *Literature, Mimesis, and Play: Essays in Literary Theory* (Tubingen: G. Narr, 1982), and in different articles, he outlines a theory influenced by Eric Havelock, E. R. Dodds, Werner Jaeger, and Rene Girard, but which in fact is quite original. The author argues in the first half of his book (the one devoted to philosophy proper) that in the nineteenth and twentieth centuries, Western culture accomodates two opposing concepts of play. The first, the aesthetically moderated view of Kant and Schiller, is

more rational and mediated. While this model of play is a reaction against the repression of the play instinct by the rationalist and post-Aristotelian tradition, it stops short of a full return to Dionysus. According to Spariosu this type of moderation merely intends to provide some flexibility to the empirical-rationalist mainstream of Western thought and to enrich it.

The author finds the second concept of play more interesting. The ludic strain in human behavior and thinking can be a pre-rational one, based on power and violence, immediate, animistic, physical and naked (the Heraclitean *eris*, or *agon* in an early Homeric sense). The return of this mode of conceiving play is found chiefly in Nietzsche and Heidegger, as well as in their disciples. Perhaps the most interesting chapters of this section deal with the interaction and dialectics of the two ludic modes in some recent authors: Fink, Gadamer, Deleuze, Derrida.

The second half of Spariosu's study boldly asserts that scientific discourse itself is shaped ultimately by concepts, imagery, prejudices, and proclivities. He joins thus the swelling ranks of those who deny the neutral objectivity and mimetic reliability of scientific propositions and models. Play, Spariosu argues, intervenes either as object or as organizing matrix in the texts of biologists such as Darwin and Bateson, psychologists such as Spencer, Freud, and Piaget, and mathematicians such as Rene Thom. Here, in the second half of the book, the most fascinating argument is to be found in a chapter that proves in great detail how the founding fathers of contemporary physics (Planck, Einstein, Heisenberg, and others yet) themselves admitted the great role played by play and the aesthetic in their scientific work. The more recent theory of chaos, one might add, could provide more grist to Spariosu's mill, but it is not dealt with in the study.

The book is enormously learned with a profusion of references. These are kept in check by Spariosu's strong emphasis on his central thesis that the human impulse towards play is not something that can be blocked at will, since it is an expression not of rational intentionality, but of the deepest impulses of human nature itself, that is, power impulses. In the process, Spariosu reaffirms the exceptionally important role of literature in human affairs: "By openly displaying its fictionality, it allows other linguistic constructs (scientific, philosophical, historical, ethical, political, juridical, and religious) to be invested with knowledge and truth" (p. 26) and "its effectiveness depends upon its being able to create a free, self-enclosed space or *neutral* play ground, where certain models for or alternatives to reality can be proposed, tested, adopted and rejected at will" (p. 27).

Many of us will wonder whether highlighting power and play as central forces in human behavior is justified. Openness to transcendence on one level, fear and trembling on another, creativity and abundance on yet another (to name just a few), seem equally important human factors. However, Spariosu's incompleteness is strong, eloquent, and illuminating, and the philosophical framework proposed by him is both plausible and useful. Traces of a nonreligious mysticism enliven the mass of theoretical sensibility clearly growing out

of the anarchist pacifism of the Californian 1960s. That inchoate mass is invested with discipline and philosophical energy by Spariosu and, in a sense, redeemed theoretically. The book, written crisply and clearly, offers a pleasant relief from the heavy materialism of most contemporary writers on these issues. It argues for the freedom, beauty, and openness of things human.—Virgil Nemoianu, *The Catholic University of America*.

SULLIVAN, Robert R. *Political Hermeneutics: The Early Thinking of Hans-Georg Gadamer*. University Park: Pennsylvania State University Press, 1989. 206 pp. \$22.50—This book covers new ground in the English scholarship on Gadamer's work. In *Gadamer's Hermeneutics* (1985), Joel Weinsheimer gives a detailed reading of Gadamer's major text, *Truth and Method*, and in *Gadamer* (1987), Georgia Warnke offers a more general interpretation of Gadamer's work, but neither of these works deals specifically with the early Gadamer, with Gadamer the philologist at work trying to understand Plato and Aristotle.

Perhaps the most valuable part of Sullivan's new book lies in the first sections, which attempt to place Gadamer in relationship to the tradition of *Altertumswissenschaft* that began in the nineteenth century with P. A. Böckh and Ulrich von Wilamowitz-Moellendorf. Sullivan sets *Altertumswissenschaft* in opposition to what he calls "the *Bildungs* tradition," "the education of the Spirit through *Kultur*" (p. 19), and this tradition, according to Sullivan, includes people like Humboldt, Schiller, and one of Gadamer's teachers, Paul Natorp. While the history of these traditions illuminates much about Gadamer's work, particularly Gadamer's 1931 book *Plato's Dialectical Ethics* (an English translation by Robert Wallace is forthcoming from Yale U.P.), Sullivan's attempt to lay out the political dimensions of the two traditions produces some feeble generalities, like "*Altertumswissenschaft* was an aspect of [the] bureaucratized, industrializing Germany of the Wilhelmine period" (p. 167). Still, such deficiencies do not detract from the book's power to convey Gadamer's provocative interpretations of Plato and Aristotle, interpretations that most classics scholars and philosophers, especially in the United States, have yet to understand.

Sullivan shows himself to be an astute reader of Gadamer, not only of *Plato's Dialectical Ethics*, but also of an early article about the Aristotelian *Protreptikos* (1927). In the latter case, we learn about Gadamer's claim that the *Protreptikos* might be a dialogue, which makes Aristotle, like Plato, a dialectical thinker. Sullivan situates this insight in the context of Werner Jaeger's positions on Plato and Aristotle, Jaeger being, at the time, one of the most influential voices in scholarship on ancient philosophy. Through Sullivan's fine description of the situation, the reader feels the impact and importance of Gadamer's disagreements with Jaeger:

[I]f the classical Greek age was a *speaking* rather than a *writing* age, then it was not given to the creation of a terminological language. Since Aristotle was not creating a terminological language in the *Protreptikos*, it follows—at least it is suggested—that Aristotle's *Protreptikos* was a piece of written speech. For Gadamer this means that it incorporated dialogue, and in his footnote he attempts to tease out the dialogue. . . . What he then "hears" is Aristotle making an effort to review the opinions of other thinkers, and this suggests to him that what he is reading is not a monologue but rather a smoothed-over dialogue with other thinkers. In sum, what Gadamer is doing here is demonstrating as best he can that *writing* originates in *speaking* . . . , and [that] is the opposite of what Jaeger presupposes. (p. 68)

This passage exemplifies a great strength of the book: the continual effort to put Gadamer in context.

In the last chapters, Sullivan reveals his understanding of Gadamer's importance and of Gadamer's challenge. For Gadamer, "Every claim is legitimate only insofar as it opens itself to the real possibility of counterclaim" (p. 171). In other words, one must be prepared to be refuted, ready to have someone or something say no to you. Dialogue exposes us, and we tend to resist that exposure. Anyone who imagines Gadamer a conservative thinker need only reflect on Gadamer's emphasis on the experience of negativity.

In the course of an otherwise fine discussion, Sullivan feels compelled, for some reason, to distinguish Gadamer from Heidegger in order to show why "Gadamer was anything but a Nazi" (p. 15)—though much later, a sentence begins, "If Gadamer did have a flirt with Nazism . . ." (p. 181). Why this effort to establish Gadamer's political purity in relationship to Heidegger, especially since there has been no question about whether Gadamer was a Nazi? In part, Sullivan's entry and exit into this matter occurs within two pages (26 and 27), in which he engages in the distressing use of damnation and salvation by association during a discussion of Gadamer's involvement with the Stefan George Circle. For what Gadamer thinks about Nazism and Heidegger's involvement with Nazism, we now have Gadamer's essay "Back from Syracuse?" which appears in a recent issue of *Critical Inquiry* (Winter 1989).—Bruce Krajewski, *The University of Chicago*.

TIESZEN, Richard L. *Mathematical Intuition: Phenomenology and Mathematical Knowledge*. Synthese Library. Dordrecht: Kluwer Academic Publishers, 1989. xvi + 209 pp. \$69.00—Both phenomenologists and analytical philosophers of mathematics should profit from this excellent exposition and defense of Husserl's account of mathematical knowledge. Tieszen places *Philosophie der Arithmetik* in the context of Husserl's later phenomenological thinking and demonstrates thereby that Husserl's contributions to the philosophy of mathematics are much more important than most of us, influenced by Frege's denigrating critique of Husserl's early psychologism, had thought. He

also makes a convincing case for the phenomenological approach to constructive mathematics.

Tieszen begins his book with a stage-setting chapter surveying views of intuition in recent and contemporary philosophy of mathematics. He then turns to the phenomenological account of intuition in general, emphasizing that phenomenology focuses on the structure of the act of intuition rather than on the relationship between the intuiting subject and the object intuited. Thus it is possible for intuitions of perceptual objects and of acausal, aspatial mathematical objects to involve the same or very similar processes. Both, it turns out, involve conscious activities of the subject who tries to fulfill intentions or expectations directed towards the object to be intuited. Intuitions are identified with the processes rather than the products, the evidence, they generate.

When we intuit a perceptual object we go through a process involving sensory experiences, which are essential to intuiting the object in question. Having particular experiences is not essential for intuiting mathematical objects. Despite this we intuit them only through sensory experience: we reflect on the structure of sensory experience, going through a process analogous to sensuous intuition but yielding categorical intuitions of abstract objects instead. By being founded in our perceptual intuitions, categorical intuitions share in their objectivity and mind independence; for in perception we can no more will structure than we can will color or taste.

Tieszen devotes three chapters to applying this account to our knowledge of the natural numbers and the hereditary finite sets. In each case he shows how our intuitions conform to the model previously developed: we undertake a process which involves having certain sensory experiences (we inscribe strokes, or point successively to members of a group of objects), and by reflecting on the structure of our experience we acquire evidence for the appropriate number or finite set. Although we cannot have a mathematical intuition without having some sensory experience, only numerical or set-theoretic properties of the experience are relevant to fulfilling our intentions and for giving us evidence of the object being intuited.

Due to our psychology, biology, and the size of the physical universe, we cannot complete the processes necessary to intuit large natural numbers or large finite sets. However, Tieszen believes that by reflecting on the intuitions we have had of smaller numbers and sets, we can see that in principle we could carry out the requisite procedures. In this way we can acquire evidence for large finite sets and natural numbers. We can similarly acquire evidence for conclusions derived by mathematical induction. This evidence will be weaker than our evidence for small sets and numbers and propositions about them, but Tieszen intends no brief for universal certainty in mathematics.

Tieszen's approach is admirable in that it separates our arriving at an idea or conceiving of an object from our testing the idea or finding evidence for the object. As a result of linking these processes too closely, many contemporary philosophers of mathematics believe that a satisfactory epistemology for abstract mathematical objects is all but impossible. This book helps counter this; yet, as Tieszen is aware,

the Husserlian approach to mathematics seems to work only for constructive mathematics, even if we are reasonably liberal in drawing the lines of constructivity. Although he explicitly states that this is no grounds for rejecting nonconstructive mathematics, he does not tell us how it is possible for us to know such mathematics.—Michael D. Resnik, *University of North Carolina, Chapel Hill*

TYMIENIECKA, Anna-Teresa. *Logos and Life. Volume 2: The Three Movements of the Soul*. Analecta Husserliana, vol. 25. Dordrecht: Kluwer Academic Publishers, 1988. xxxvi + 219 pp. Cloth, \$79.00; paper, \$24.00—Volume 1 of this work, subtitled *Creative Experience and the Critique of Reason* and reviewed in these pages by Dallas Laskey (June 1989, pp. 855–6), is a study of human creative processes, for it is, Tymieniecka argues, the creative imagination and the will which are the wellspring of all human life. These creative processes, which are to be understood as “man’s self-interpretation-in-existence,” reach their natural or worldly pinnacle in historical, cultural communities with their poetic, moral, and intelligible productions. Such communities, however, emerging and decaying in turn, cannot confer an *ultimate* significance on human life. Hence, the present volume turns its attention to the elucidation of the “transnatural destiny” of the human being, of the ways in which human creativity orients us toward the divine. This elucidation of the experience of the divine will complete the account of human creativity because we shall discover that the divine reveals itself to us in human inwardness, in the human formulation of the sacred message: “the ciphering of the sacred message advances through man’s self-ciphering-in-the-sacred.”

Acts of spiritual interiority differ essentially from objectifying acts; they point us beyond all objectivity precisely by virtue of pointing back to the self as the origin of our experience of a world and of human, cultural communities. Such spiritual acts have, in the first place, a “tonality,” that is, an affectivity involving a harmonic and polyphonic unity traversing several conscious levels, which unity can never be grasped in its wholeness. Secondly, spiritual acts differentiate themselves not in relation to specific objects of consciousness, but in relation to an essentially personal, subjective, “message” contained within them. Thirdly, this message does not involve us in taking a cognitive position; it is instead proclaiming a truth not of logical understanding but of faith. Finally, the spiritual act communicates not by enunciating a discursive truth but by extending its proclamation to all.

This spiritual interiority unfolds in three movements which Tymieniecka identifies as (1) “radical examination,” which is born when the familiar appears uncertain and arbitrary and by which we become aware of our “transempirical aspirations”; (2) “exalted existence,” which frees our yearning for the Absolute and which both manifests and maintains itself—but cannot satisfy itself—in communication

with other humans; and (3) "transcending," which involves us in the elaboration of the sacred message and which is the aforementioned "self-ciphering" through communication with other people in the sacred. Various historical, philosophical, and literary examples illuminate these moments.

Tymieniecka describes, in ways often obscure even when thought-provoking, a religious experience which, involving as it does an interior destiny, is intensely personal. This experience is mystical insofar as the communion it achieves with the divine lies beyond any communicative expression of and in the sacred. The fact that little is said of the object of this experience, of the divine or sacred itself, is from this perspective not too surprising. It is, however, somewhat surprising for someone who is avowedly Husserlian, since this experience still involves a (non-cognizing) directedness and since Husserl's notion of intentional analysis seems to call for analyses of both the experience and the object as experienced.

Moreover, while it is true, first, that the religious experience has a necessary intersubjective dimension in which the inward ground of the sacred is revealed in each of us through the "creative reciprocity" of love and, secondly, that Tymieniecka insists that this is not an isolated, self-centered search for meaning, the religious experience is itself in no way especially communal. There is little sense of the other's good as our own good in the intensely personal yet exalted and communicated experiences of our own spiritual, transnatural destiny, of our own "inward sacredness." Given the primarily Christian (and very often Catholic) examples with which Tymieniecka illustrates her position, this absence of a discussion of an essentially communal experience (rather than coincidental individual experiences) of the divine is also somewhat surprising.

Tymieniecka's account of religion and of the religious experience strikes this reader as fundamentally Kierkegaardian: there is little indication of any "objective" truth regarding the divine; there is little sense, despite the emphasis on intersubjectivity, of a communal "church"; the focus is clearly on a kind of personal piety, on the "how" of our individual relation to the divine.—John J. Drummond, *Mount Saint Mary's College (Md.)*.

WHITE, David A. *Myth and Metaphysics in Plato's Phaedo*. Selinsgrove: Susquehanna University Press, 1989. 316 pp. \$45.00—The title has more than a general accuracy; it suggests that myth will be taken as philosophically significant, not as a mere adornment, and this the book does.

White sees "only one 'proof', or account, in the *Phaedo*." The account is "an ancient adage, originating in a mystery doctrine, progressively 'purified' by discursive means, and then subjected to mythical supplementation at appropriate intervals" (p. 216). Such supplementation is a "theoretical expansiveness" (p. 235), for "myth

cannot persuade in a fabulist sense" (p. 238). There is "only one continuous proof" for the soul's immortality, advanced by the myths—which "indicate the limits of arguments," point to "areas of further analysis," and "produce persuasion about what has been rationally discussed to that point" (p. 99).

The proof, the account, and Socrates' confidence thus gradually gain force. Early in the day, we discover that "Socrates has poeticized because Socrates has begun to doubt" (p. 31); only by evening, White says, "is Socrates truly confident about the results of his day's investigations" (p. 269); only after the last myth is chanted does Socrates have "certitude about the significance of his life" (p. 236).

Still, White does not believe that the recurring dream expressed doubt about the significance of Socrates' life. He admits that "the [dream's] point might be that Socrates had misspent his life, . . . that he should have been a poet, not a philosopher." But White chooses "another possibility," another "interpretation," one "not as drastic": that, in the time remaining, Socrates "should complement a life spent pursuing philosophy by realizing that the *logoi* produced by the love of wisdom have limits," that "philosophy can and perhaps must be complemented by myth" (p. 31). And so, from beginning to end, such is the substance of the dialogue and the deathday. If, however, the former "possibility" is Plato's actual meaning, which is the plain reading, then the substance of dialogue and deathday is likely otherwise, and White's thesis is wrong.

The *Phaedo*'s lodestar, for White, is the sun, the good. He takes Socrates' "second voyage" as "another attempt to reach knowledge of mind and the good," not as "a 'second best' and therefore derivative destination" (p. 164). The latter view "depends on substituting a plurality of Forms in place of a single cause, the good." White sees the Forms' "fundamental role in the metaphysics of the *Phaedo*," but, he says, "it is the good, that by virtue of which all things, even the Forms, are held together" (p. 171).

The good even "grounds the Form goodness" (p. 179), White says, but is fully known only by the true philosopher and only after death. Socrates knows the good at the dialogue's start only insofar as he recognizes "that the predication of 'good' is appropriate to things that can exist only in the next life" (p. 62). As the day progresses, so does his knowledge of the good—until the sun's setting, when, "if the sun represents the good, then Socrates' decision to end his life now is informed by a glimmer of the good reflecting the dying rays of the sun" (p. 273).

Several times White gives metaphysical meaning to the myth by this representation, which he says is "indicated in the *Republic* and suggested at *Phaedo* 99e" (p. 280). Others may not find that suggestion, and White admits that "the *Phaedo* does not explicitly equate the good with the sun." Also unlike White, others may not find "difficult to believe that it [the good as underlying the Form goodness] is completely absent from the metaphysics of the *Phaedo*, especially if both works [*Republic* and *Phaedo*] were planned together" (p. 294). The myths and proofs best gain philosophic significance, I believe,

when seen in the wider context of drama, which White hardly analyzes.—Jerome Eckstein, *The University at Albany*.

WINKLER, Kenneth, P. *Berkeley: An Interpretation*. Oxford: Clarendon Press, 1989. xiv + 317 pp. \$59.00—Winkler provides a careful and historically informed discussion of the major issues germane to Berkeley's immaterialism. A primary objective of the work is to show that Berkeley attempted to transform "the natural world from a system of bodies with powers into a system of inert signs—a *text*—with no existence apart from the spirits who transmit and receive it" (p. 1). To this end, he distinguishes between representation and signification, arguing that the latter is of primary importance for an adequate understanding of Berkeley's philosophy.

Winkler examines many of the principal issues in Berkeley's philosophy. In his discussion of abstraction he shows that Berkeley's criticism of Locke rests on the assumption that the content of thought is determined by the object of thought (p. 39). Such a view does *not* construe abstraction as selective attention or partial consideration, an account of abstraction Winkler attributes to Locke. Winkler explains why Berkeley attributed such a view to Locke and shows that, at least in his later works, Berkeley does not take literally the "all and none" phrase in the celebrated triangle passage. Nonetheless, his discussion is somewhat incomplete, for it ignores Berkeley's attempt to provide a non-Lockean explanation of the meaning of sortal terms in sections 11 and 12 of the "Introduction" to the *Principles*. Consequently, Winkler fails to notice the similarity in argumentative structure between Berkeley's criticisms of abstraction and his criticisms of material substance in sections 16-23 of the *Principles*.

In chapter 3 Winkler argues that Berkeley rejects the distinction between simple and complex ideas because (1) simple ideas have no internal similarities and (2) simple ideas must be abstract and capable of standing alone (pp. 58, 65-73). His case for the latter seems to blur the distinction between (a) a simple idea as a component of a complex idea—it might be a fact that all the ideas we sensibly perceive are complex—and (b) the possibility of forming an idea of a simple in isolation from all other ideas. The rejection of Lockean abstract ideas commits Berkeley to (b) but not to (a). The argument for the first point is puzzling. The entries in the *Philosophical Commentaries* marked with a plus are entries Berkeley decided not to use (p. xiii). It is one set of such entries that Winkler pits against another in attempting to show that Berkeley rejected the distinction between simple and complex ideas. While Winkler might be correct in hypothesizing that Berkeley explored the distinction between simple and complex ideas in an attempt to explicate the formal nature of necessary truth (p. 90), the textual evidence seems to leave open any positive claim regarding that distinction.

Beginning in chapter 5, Winkler focuses on some of the major elements of immaterialism. He provides a sympathetic interpretation of Berkeley's claim that only spirits can be causes, an account that is independent of the tenets of immaterialism while avoiding both the pitfalls of occasionalism and Humean constant conjunction. He carefully examines the arguments for immaterialism in the *Principles* and the First Dialogue. His arguments that Berkeley was a phenomenalist of a specified kind, rather than an idealist, are persuasive, as are his arguments that the divine perceiver hypothesis rests fundamentally on a rejection of the notion of blind agency. Winkler develops and defends an immaterialist version of the corpuscular hypothesis, showing that in both *De Motu* and *Siris* there is a shift from a purely critical discussion of the primary/secondary qualities distinction to an account allowing that primary qualities are particularly useful predictive signs (p. 261). He concludes with a discussion of spirits that ties together many of his remarks on the importance of signification for a proper understanding of Berkeley.

This book is clear in style and argumentation. It challenges many of the standard interpretations of Berkeley's philosophy. While one might question several of Winkler's conclusions, his thorough knowledge and careful examinations of the texts challenges any critic to provide a more coherent account.—Daniel E. Flage, *James Madison University*.

CURRENT PERIODICAL ARTICLES

PHILOSOPHICAL ABSTRACTS*

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Recent Work in Naturalized Epistemology, ROBERT ALMEDER

This article begins by characterizing the three distinct forms of naturalized epistemology and examines all arguments favoring only the first form. The first form asserts that the only legitimate questions about the nature of human knowledge are those we can answer in natural science. After examining and rejecting the five major arguments offered in the literature, the essay concludes that not only are there no persuasive arguments favoring the first form of naturalized epistemology, but the thesis is inherently contradictory.

A Reading of Aquinas' Five Ways, ROBERT J. FOGELIN

Instead of treating Aquinas's so-called Five Ways as a *posteriori* demonstrations of God's existence, this essay offers an interpretation that treats them as a response to an objection that immediately precedes them in the text of the *Summa Theologica*: "[I]f a few causes fully account for some effect, one does not seek more. Now it seems that everything we observe in this world can be fully accounted for by other causes, without assuming a God" (Ia, q. 2, a. 3). On the reading suggested, the Five Ways offer a response to this antitheological claim made on behalf of the science of Aquinas's day by showing its ultimate incompleteness. Taken this way, they are not presented as demonstrations that derive their premises from the science of Aquinas's time.

* Abstracts of articles from leading philosophical journals are published as a regular feature of *The Review*. We wish to thank the editors of the journals represented for their cooperation, and the authors of the articles for their willingness to submit abstracts. Where abstracts have not been submitted, the name and author of the article are listed.

Recent Work on Naturalized Epistemology, JAMES MAFFIE

A growing number of philosophers call for the naturalization of epistemology. Understanding what this entails is hampered by the confounding variety of its proponents. This article argues that continuity lies at the heart of the naturalistic turn in epistemology. Naturalists are united by a shared commitment to the continuity of science and epistemology and tend to advocate one or more of six distinct species of continuity: contextual, semantic, epistemological, methodological, metaphysical, and axiological. Naturalists are divided from one another, however, over the proper interpretation and scope of continuity. The naturalist program espoused by Goldman, Kim, and Sosa is unsatisfactorily half-hearted: it leaves meta-epistemological inquiry both methodologically and epistemologically *sui generis* and autonomous from science. A more plausible approach naturalizes epistemology "all the way up," that is, including meta-epistemology itself.

Directions of Justification in the Negative-Positive Duty Debate,
H. M. MALM

Part 1 of this paper sets out and criticizes the *structure of justification* implicit in the debate about the moral significance of the difference between duties not to cause harm and duties to prevent harm. On this traditional structure, the moral significance (or lack thereof) of the difference between the duties is attributed, ultimately, to the presence (or lack thereof) of an *in itself* significant difference between the act-types. Three problems with this structure are discussed, one of them being the creation of a false dichotomy. Part 2 argues that the way to avoid these problems and to allow for a resolution to the debate is to abandon the traditional structure in favor of one that is completely its opposite. This structure is presented, as is its relationship to the fundamental values of autonomy and human welfare. Attention is also given to analyzing the notion of *morally significant in itself*.

Nominalism and Abstract Reference, J. P. MORELAND

Three schools of thought exist regarding the existence and nature of qualities: extreme nominalism (qualities do not exist), nominalism (qualities are abstract particulars), and realism (qualities are universals). This article focuses on the debate about the nature of qualities between nominalists and realists by focusing on one area of argumentation, abstract reference. Realists claim that sentences like (1) red resembles orange more than it does blue, and (2) red is a color, incorporate abstract singular terms, like "red," which refer to universals. Nominalists try to account for (1) and (2) by employing two basic strategies. They either claim that abstract singular terms refer to sets of abstract particulars or that (1) and (2) can be paraphrased to eliminate the abstract singular terms. Both

strategies are examined and rejected and the claim is made that sentences like (1) and (2) provide evidence for a realist assay of qualities.

What Is Virtue Ethics All About? Recent Work on the Virtues,
GREGORY TRIANOSKY

Recent work on the virtues is united primarily by its opposition to various central elements of "neo-Kantianism." Once the tenets of this view are articulated, two distinctions emerge as essential for understanding the tendencies of recent theorizing about virtue. First, the distinction between an ethics of duty and an ethics of virtue reveals that many contemporary writers on the virtues continue to work within the framework of the ethics of duty. Second, the distinction between teleological and nonteleological ethics of virtue shows that the emphasis has been on views of the former sort rather than on perfectionistic, Aristotelian views of the latter sort. These distinctions thus suggest new agendas for virtue theorists. The last portion of the article canvasses the rich and yet-untapped resources which the virtue theorist has for responding to the frequently heard criticism that an ethics of virtue cannot say much about what people ought to do.

The Range of Options, MICHAEL J. ZIMMERMAN

It is argued that the range of options open to an agent is far more restricted than is commonly thought, for the reason that very many of the (alleged) options that are normally ascribed to an agent are such that that agent can perform them only if he or she has certain thoughts, and yet that person does not have and cannot come to have these thoughts. The moral implications of this argument are then briefly examined.

Classification by Comparison with Paradigms, ROLF A. EBERLE

It has long been claimed that classifications with respect to "natural" properties can be both learned and justified by comparison with exemplars. Yet work initiated especially by R. Carnap and N. Goodman has revealed that the construction of quality classes on the basis of various resemblance relations is beset by serious difficulties. Nevertheless, the article shows—by way of specifying truth-conditions for atomic sentences—that principled classifications with respect to all but universal or empty properties (and relations) can be effected provably by simultaneous comparison and contrast with suitable exemplars. There are advantages to thinking of such exemplars as paradigms: sentences, such as "birds are feathered" in the sense of "typical birds are feathered," will be true of them; vague predicates apply to qualitative neighborhoods around them; and comparatives can be justified on the basis of typical (rather than extreme) exemplars.

AUSTRALASIAN JOURNAL OF PHILOSOPHY
Vol. 68, No. 4, December 1990

Freedom, Necessity, and Laws of Nature as Relations between Universals, KADRI VIHVELIN

It is a mistake to think of the debate between compatibilists and incompatibilists as a debate about which conception of free will is the correct one. Compatibilists can and should accept the view that agents are free only if they have the unconditional, categorical, and unimpeded ability to do other than what they in fact do. It may seem that this view provides the makings of a powerful argument for incompatibilism. The argument, in fact, relies on a controversial claim not entailed by this view of free will, but a compatibilist may be able to accept this claim as well. The argument goes through only if a certain kind of non-Humean account of laws of nature is correct—the account of laws as relations between universals.

The Trouble with Goldman's Reliabilism, GARY GLEB

Alvin Goldman has tried to develop a reliabilist account of justification within three constraints. The first is methodological: Goldman wants to explain ordinary intuitions about justification unless strong theoretical considerations force revisions in them. The second is the thesis that justification can be explained in terms of reliable cognitive processes. The third is the claim that empirical research is required to determine which processes are justification-conferring. It is argued that without revisions in intuitions about justification, these constraints cannot be simultaneously satisfied. If reliability is indexed to a single world, the first constraint is violated; if reliability is indexed to a class of worlds, either the first or the third is violated. Since Goldman has not supplied grounds for revising intuitions about justification, his account faces a serious difficulty.

Ethics Without Morality, DEREK BROWNE

Ancient ethics and modern morality, as understood by the philosophers, exhibit many puzzling differences. Greek ethical thinking used to be criticized for failing to respect some of the crucial principles of moral thinking. More recently, the idea of morality itself has come under attack, and the Greek concept of ethics has been judged to be both more coherent and more attractive. This article explores and defends the thesis that the Greek concept of ethics really is significantly different from the modern concept of morality. Ethics is properly the art of living, and while it includes material that falls within the scope of our concept of morality, the ancient concept organizes that material differently. The article describes in some detail the special concerns and concepts that define the ancient ethical project.

Could I Conceive Being a Brain in a Vat? JOHN D. COLLIER

This article accepts the premises of Putnam's notorious argument that we could not be a brain in a vat, and argues that even this allows a robust (although relativistic) form of realism. The strategy is to distinguish between our ability to state a theory and our ability to conceive the possibility that a theory is false. Putnam depends on statability, but conceivability is the appropriate requirement for the realist. The argument makes use of Kaplan's theory of indexicals, and argues that Stalnaker's diagonalization is not applicable to this sort of case.

Killing and Letting Die—Putting the Debate in Context,
JOHN CHANDLER*De Re Desire,* PETER MARKIE and TIMOTHY PATRICK

INTERNATIONAL PHILOSOPHICAL QUARTERLY
Vol. 29, No. 2, June 1990

Rorty's Pragmatism and the Pursuit of Truth, RON BONTEKOE

It is argued first that the "conversational turn" which Rorty, as an advocate of tolerance, wants philosophy to take would, ironically, be disastrous for tolerance, and second that Rorty's rejection of the pursuit of truth is unwarranted given our ability to improve the effectiveness of our languages.

INTERNATIONAL PHILOSOPHICAL QUARTERLY
Vol. 29, No. 3, September 1990

The Debate Regarding Dialectical Logic in Marx's Economic Writings, TONY SMITH

The first part of the paper discusses two contrasting views on the nature of dialectics in Marx's economic writings, both of which claim considerable textual support: 1) Marx took over the project of constructing a systematic dialectical theory of categories from Hegel, applying this project to the realm of political economy; 2) Marx presented a logico-historical dialectic in sharp opposition to Hegel. In the second part of the paper the former reading is defended. A number of immanent problems in the logico-historical interpretation are given. It is also argued that the sys-

tematic approach allows a greater contribution to the overcoming of illusions, the justification of claims of theoretical necessity, and the grounding of revolutionary practice—three central tasks of Marx's theory. The paper concludes with a brief conjecture regarding why Marx often emphasized the historical dimension of his thought at the cost of downplaying the systematic element.

Loneragan's Negative Dialectic, PAUL KIDDER

The transcendental pivot of Lonergan's philosophy is to be found not in any product of intelligence but in intellectual operations themselves. Such a philosophy, if it is to stand, must refute those who would deny the existence, availability, or relevance of the cognitive operations in question. This article follows the course of Lonergan's refutation, which employs primarily the notion of performative self-contradiction. Objections to Lonergan's elenctic arguments are then considered: against those who might see in Lonergan's strategy empty eristic, it is argued that emptiness only appears when one divorces Lonergan's negative arguments from his positive philosophy, which one ought not to do; against those who do not feel the damning power of arguments from performative self-contradiction because they regard such contradictions as perfectly universal and inevitable, it is shown how celebrations of logical dissonance might overlook integrating aspects of consciousness.

Being and the Sciences: The Philosophy of Gaston Isaye,
MARC LECLERC

At the crossroads of positive sciences and critical philosophy, Isaye's metaphysics give a new insight into the fundamental questions related to these fields. He systematized the Aristotelian retorsion in order to justify the starting points of human knowledge and particularly of the physical sciences. In this way, he was able to bring a clear solution to the huge problem of experimental induction. Reciprocally, positive sciences can provide the matter for an inductive metaphysical interpretation of sensible data; within such a framework, Isaye justifies critically the bases for a new philosophy of nature.

The Immorality of Nuclear Deterrence, DAVID ARDAGH

This paper argues that nuclear deterrence strategy (NDS) is immoral. Section 1 outlines some moral intuitions regarding limits on deterrent threat-making disclosed in ordinary domestic and legal contexts, and suggests that NDS flouts these intuitions. Section 2 further specifies these moral intuitions as they are articulated in the "natural law/just war" tradition; applies them to NDS; and confirms that NDS is substantially at odds with our moral tradition. Section 3 outlines and rejects two arguments for NDS which appear to be left standing by Section 2's analysis:

first, that NDS can meet the excepting conditions to the principle that it is wrong to threaten what it would be wrong to do; second, that NDS is not fundamentally intended, but only quasi-intended by its proponents. Section 4 offers some speculation on why we do not abandon NDS even though it is on reflection immoral.

Why St. Thomas Stays Alive, GERALD A. MCCOOL

Economic Participation: The Discourse of Work,
PHILIP J. CHMIELEWSKI

THE JOURNAL OF PHILOSOPHY
Vol. 87, No. 7, July 1990

Utilitarianism, Sociobiology, and the Limits of Benevolence,
DANNY SCOCCIA

J. L. Mackie (among others) has argued that because natural selection has programmed into us a capacity for benevolence which is too weak to motivate the sacrifices that utilitarianism demands, utilitarianism is "unworkable." The author argues that this objection rests on a confusion of the concepts of "utility maximizer" and "utilitarian saint." But a similar objection to principles enjoining pacifism, or Christian or utilitarian sainthood, may well succeed if psychological determinism is true and "ought implies can."

Commodities, Language, and Desire, MICHAEL BACHARACH

This paper examines the role of natural language in exchange of goods and explicates the notion of a commodity. The dominant form of trade is trade without inspection, effected through verbal descriptions contained in "notional" offers. A "commodity" is a type so traded. Such trade depends on the notionality of consumers' preferences and on the semantic power of a commonly possessed language. One who understands a predicate x has numerous beliefs in tendencies of x things to have such and such properties, desirable and undesirable. These commonsense beliefs are modeled here by a Bayesian prior shared by buyers and sellers, which in turn yields a notion of the informativeness of x . It is shown that if x is informative enough, commodity trade in x 's Pareto-improves on trade by inspection in them. These considerations provide a capital-theoretic component in the explanation of a community's conceptual repertoire.

THE JOURNAL OF PHILOSOPHY
Vol. 87, No. 8, August 1990

Identity Statements and the Necessary A Posteriori,
HELEN STEWARD

Identity statements involving natural kind terms (for example, "water = H₂O") are often cited in the philosophical literature as examples of necessary truths whose contents are discovered *a posteriori*. It can appear, given the nature of the arguments that are put forward in favor of the necessity of such truths, that a certain variety of essentialism is actually provable. The resources drawn on in the derivation of these necessary truths are meager; the anti-essentialist, in the case of these claims, appears to be left challenging, at the risk of absurdity, the joint verdict of uncontroversial science and trivial logic. The article argues that the premises drawn on in such essentialist arguments are not innocuous. A contrast between two kinds of rigid designator is drawn, and it is argued that chemical formulae and other technical substance and species names are not rigid designators in the sense required by the essentialist's argument.

What is Reasoning? What is an Argument?
DOUGLAS N. WALTON

This paper defines an argument as a social and verbal means of resolving a conflict of opinions between two participants in dialogue. Reasoning, said to occur in arguments, is defined as the granting of assumptions and the use of warrants to generate sequences of inferences. Reasoning is used in goal-directed argument, which is set in a context of dialogue, giving the reasoning its purpose and direction. Practical reasoning is distinguished from discursive (theoretical) reasoning.

THE JOURNAL OF PHILOSOPHY
Vol. 87, No. 9, September 1990

National Self-determination, AVISHAI MARGALIT and
JOSEPH RAZ

The article deals with the moral justification of the case for national self-determination. It asks who has the right to self-determination and under what conditions is it to be exercised. It attempts to show that the right of self-determination is not ultimate but is grounded in the wider value of national self-government, which is itself only to be instrumentally justified. The article also takes up the question of the nature of the groups that might be the subject of such a right. It considers what value, if any, is served by the enjoyment of political independence by such groups.

It then goes on to examine the case for conceding that there is a moral right of self-determination. The examination leads to revising the content of the right as normally understood.

Against Ockhamism, DAVID WIDERKER

This paper examines the Ockhamistic response to the problem of reconciling divine foreknowledge and human freedom, based on the idea that we may have power over God's prior knowings of human free actions, since the latter are merely "soft" facts about the past, and not "hard" facts about the past. It is argued that the reasons offered by contemporary Ockhamists for so treating facts regarding God's foreknowledge of human free actions are either of doubtful relevance, or rest on assumptions that are mistaken. Moreover, it is shown that power over facts regarding God's foreknowledge of future events may give an agent power over hard facts about the past, and hence the Ockhamist strategy of reconciling divine foreknowledge with human freedom does not succeed.

THE JOURNAL OF THE HISTORY OF PHILOSOPHY
Vol. 28, No. 4, October 1990

Aristotelian Mimesis Re-evaluated, STEPHEN HALLIWELL

This article is an attempt to discard some traditional misconceptions of Aristotle's view of artistic representation and to reappraise its philosophical credentials in the light of certain fundamental and recurrent issues in European aesthetics. Using the evidence of various works, and considering Aristotle's understanding of music and visual art, as well as poetry, the article contends that mimesis offers a conception of representational signification which grows from a notion of "likeness" (iconicity) but develops, in the *Poetics*, into a more complex set of considerations. These considerations entail, it is argued, a "dual-aspect" mimeticism that is neither formalist nor moralistic, but is designed to cope with works of art both as material artifacts and as imaginative conveyors of possible realities.

Locke on Mathematical Knowledge, PREDRAG CICOVACKI

Locke argues that mathematical knowledge is objective real knowledge, but this does not mean that he believes it to be empirical. Locke's account is based on his theory of complex ideas of mixed modes and relations that are originals and archetypes, not copies, that is, not given in sensation, nor "made after the pattern of any real experience." Archetypes are framed in such a way that existing things necessarily conform to them. This is why mathematical knowledge is, in Kantian terms, *a priori*. Moreover, mathematical knowledge concerns the real, not the nominal, essence

of complex ideas of mixed modes and relations; for this reason mathematical knowledge is always instructive, not trifling, but synthetic. Though Locke's account seems proto-Kantian, Kant failed to see the extent of Locke's anticipation of his own theory of mathematical knowledge.

Two-Steps-in-One-Proof: The Structure of the Transcendental Deduction of the Categories, J. CLAUDE EVANS

Dieter Henrich's "The Proof-Structure of Kant's Transcendental Deduction" is already a classic essay in Kant scholarship. This article examines the most important criticisms of Henrich, those of Henry Allison and Hoke Robinson. After arguing that neither Henrich nor his critics have offered an adequate interpretation, the article develops a modified version of Henrich's restriction thesis which is not vulnerable to the criticisms raised against his original version. The final section shows that the first hermeneutically optimal solution to the problem of the proof-structure of the B-Deduction was developed by Hermann Cohen.

William James's Theory of Mind, W. E. COOPER

Neutral monist, phenomenological, naturalist, and panpsychist interpretations of James's theory of mind are distinguished and criticized. A reconciling view is formulated, relying on James's insistence on keeping scientific and metaphysical questions separate. A comparison is drawn to Thomas Nagel's recent thoughts on panpsychism.

Leibniz's "Analysis of Multitude and Phenomena into Unities and Reality," J. CLAUDE EVANS

THE MONIST
Vol. 73, No. 3, July 1990

An Historical Sketch of Pluralism, ANDREW J. RECK

This article aims to explore the meanings of pluralism in philosophy by offering a historical sketch. It also provides a glimpse of the philosophical background of critical pluralism. Part 1 discusses Aristotle, Leibniz, and William James, and distinguishes metaphysical and methodological pluralism. Part 2 examines Mortimer Adler's early theory of dialectic, Stephen Pepper's conception of metaphysics as world hypothesis, Kenneth Burke's dramatism, and Richard McKeon's metaphilosophy. In part 3, the argument concludes that pluralism in philosophy and in criticism is indispensable if dogmatism and skepticism are to be avoided.

THE MONIST
Vol. 73, No. 4, October 1990

Are Property Rights Problematic? GERALD F. GAUS and
LOREN E. LOMASKY

In a well-known essay Alan Gibbard argues that, while property "adds to the freedom of the owner, [it] detracts from the freedom of . . . others." Gibbard is correct this far: Mort's property right to x does indeed restrict Millie's liberty with respect to x . However, the article claims, this is not a special feature of property rights as distinguished from other rights, nor does it somehow imply that freedom and property are in special conflict. The arguments of the first three sections of the paper support the judgment that property rights are no more problematic within the context of liberal theory than other quintessentially liberal rights such as freedom of speech. Many theorists have, however, believed that the justification of title to private property diverges significantly from other strands of liberal justificatory theory. In the fourth section an assessment of why these theorists take property to be different is offered.

When is Original Appropriation Required? DAVID SCHMIDTZ

All property eventually traces its existence (as property) to appropriations of previously unowned goods. Thus, whether the institution of property can be justified depends on whether original appropriation can be justified. The so-called Lockean Proviso holds that, however one goes about removing goods from the commons, one establishes unequivocal title to those goods only if one's act of removal leaves "enough and as good" for others. Unfortunately, the Proviso is generally understood to be a test that, in a world of scarcity, original appropriation cannot possibly pass. Against this, the article argues that, far from not *permitting* us to remove goods from the commons under conditions of scarcity, the Proviso typically *requires* us to take that very action.

Self-Ownership and the Right of Property, ERIC MACK

Defenders of robust private property rights have typically put forward act theories according to which each entitlement to extra-personal objects rests on particular actions through which an internal right gains purchase in the world. The limitation of basic rights to internal rights does not give sufficient recognition to the fact that human beings live in and through a world of external objects which constitutes the field in which almost all human values are pursued. Such recognition requires a basic right of property. But this is not a right to any particular extra-personal objects or to any share of such objects. It is a right to the practice of private property, that is, to the compliance of others with a system of rules under

which individuals may acquire, transform, and exercise discretionary control over extrapersonal objects.

Ownership as Theft, JAMES O. GRUNEBAUM

This article makes three points. David Gauthier's attempt to justify private ownership by a state of nature argument based upon first appropriation fails, as do all such attempts. Second, Gauthier's attempt fails because he offers only a question-begging partial justification which fails to show that private ownership and only private ownership is morally justifiable. The last section of the article shows that Gauthier's concept of ownership differs from private ownership in ways that make it impossible to actually put the form of ownership into practice. These arguments critical of Gauthier's justification are embedded in a more general discussion of the necessary logical structure of all specific forms of ownership.

Economists and Philosophers as Critics of the Free Enterprise System, N. SCOTT ARNOLD

This paper provides a taxonomy of criticisms of the free enterprise system by economists and philosophers. It is argued that a common failing of these criticisms is the unwarranted assumption that state action restricting private property rights would solve the problems critics have identified. Both economists and philosophers need to articulate more fully alternative institutional arrangements and explain how the latter would solve the problems they have identified without creating difficulties that are equally serious or worse. Some positive suggestions about how this might be done are offered.

Radin on Personhood and Rent Control, DAN GREENBERG

Margaret Jane Radin defends residential rent control by arguing that housing should not be treated as a market commodity because of the nature of personhood—that is, the dependence of personhood upon certain stable forms of property. Her argument is vulnerable to several serious criticisms. For instance, why should landlords bear the burden of rent control laws, rather than all of society (for instance, through taxation)? Should all kinds of personhood be fostered—including the kinds fostered by rape, shoe fetishism, or slave-ownership? (Or, more centrally here, the kind fostered by being a landlord?) Finally, it is not clear how much interference in others' lives we should permit in order to promote personhood. That is, are there other important goods, and to what extent should we pass over them in favor of personhood? Her answers to these and other questions are explored and found wanting. An alternative, Humean framework is proposed to solve certain problems in her work.

Property, Entitlement, and Remedy, JEFFREY PAUL

The Moral Foundations of Intangible Property, JAMES W. CHILD

Property in Science and the Market, JOHN O'NEILL

NOUS

Vol. 24, No. 3, June 1990

Primary Goods Reconsidered, RICHARD J. ARNESON

The author challenges John Rawls's claim that for purposes of the theory of justice, the advantages and disadvantages of social cooperation should be reckoned in terms of shares of primary social goods. Individual opportunities for preference satisfaction rather than primary goods should be the basis of interpersonal comparisons for distributive justice. It is argued that the Kantian reformulation of Rawls's theory of justice does not significantly advance the case for primary goods. Nor does Rawls's recent appeal to the fact of pluralism rebut a preference-satisfaction approach. The unsolved indexing problem for primary goods enhances the appeal of the rival preference satisfaction approach. Rightly understood, the voluntary character of preferences does not impugn this latter approach either. This becomes clear if one distinguishes the issues of (1) primary goods versus preference satisfaction and (2) outcomes versus opportunities.

Events Without Times: An Essay on Ontology,
RODERICK M. CHISHOLM

Making use of tense and of four undefined philosophical concepts (exemplification, necessity, state, and part), this paper sets forth a theory of events that is simpler than its alternatives. Unlike most of these alternatives, it presupposes that questions about what would be an adequate *language* for describing an event cannot be answered without first constructing a general ontology and theory of categories. It exhibits events as contingent states of contingent substances and attempts to show that what is known about temporality can be expressed without presupposing that "times" are substantival entities. It also proposes solutions to familiar philosophical puzzles about time and events.

Critical Common-sensism and Rational Self-Control,
CHRISTOPHER HOOKWAY

The paper attempts to understand and evaluate Charles Peirce's "critical common-sensism," a doctrine he explicitly defended towards the end of his career. After noting the roots of the doctrine in his early insistence that the skeptical doubts discussed by philosophers are "unreal," it compares Peirce's "critical" common-sense doctrine with Reid's earlier common-sensism. The significance of Peirce's assertion that his doctrine captures the insight of the Kantian philosophy is evaluated, and his position is compared with Wittgenstein's. The core of the paper is a discussion of some of Peirce's examples of common-sense propositions and an examination of why he emphasized the doctrine after 1903. It is argued that unless experientially grounded common-sense certainties are available, inquirers will lack the certainties required to exercise self-control over their investigations.

Irresistible Desires, ALFRED R. MELE

This paper advances a new analysis of irresistible desire. The analysis features a distinction between unconquerable and uncircumventable desires as well as accounts of three species of inability with respect to intentional action: epistemic (in a broad sense), motivational, and executive. A traditional analysis of irresistible desire is attacked—one framed in terms of what an agent would have done if she had taken there to be good and sufficient reason for not acting on a given desire.

NOUS

Vol. 24, No. 4, September 1990

*Avowals in the "Philosophical Investigations": Expression,
Reliability, Description,* EIKE VON SAVIGNY

In the *Philosophical Investigations*, Wittgenstein construes psychological facts as patterns exhibited by "weaves" which include a person's behavior as well as its temporal and social surroundings. Avowals, in being linguistic elements of such patterns, come to be taken as expressing psychological facts in a way that, given the general liberty in pattern description, is normal with all conspicuous elements of behavioral patterns. Speakers come to be taken to express psychological facts because avowals are semantically self-predicating (which is understandable in the light of the normal ways they are learnt). That avowals come to be reliable expressions of their psychological facts is anything but surprising, given normal human capacities of learning to behave in patterns; furthermore,

avowals can supplement incomplete patterns and thus define them because articulated sentences add high amounts of complexity. Though not intro-evidentially descriptive, avowals can be descriptions in the way that stating one's impressions of x can be a description of x .

Qualitative Identity and Uniformity, GEORGE N. SCHLESINGER

According to the most defensible interpretation of Mill's position, his doctrine of the uniformity of nature says: The same laws of nature govern all numerically distinct but qualitatively identical particulars. However, if we adopt in the context of his principle the strong notion of "qualitative identity," we render it vacuous, since it would be absolutely immune to any counterexample. To ensure the *falsifiability* of Mill's doctrine, as well as that it has so far *never been actually falsified* (and hence its true significance), we must read "qualitatively identical" as representing a weaker notion: A and B remain qualitatively identical, even if they should differ in many properties, as long as they differ in insubstantial properties only. The central aim of the paper is to make a detailed, rigorous distinction between substantial and insubstantial properties.

New Problems with Repeatable Properties and with Change,
PETER FORREST

The author presents two problems which arise if we consider Space (or Space Time) to be curved. Suppose an object goes round a closed circuit, arriving back where it started. Suppose, in addition, that it has a certain property specified by a vector. We are to consider what happens if, apparently, this property is unchanging as the object goes round the circuit. If space is curved, then, apparently the object never changes with respect to this property, yet it comes back with a different property. Some resolution of this paradox is required. The one which the author supplies has the interesting consequence that repeatable properties (universals in one sense) do not play as fundamental a role in ontology as he, and many others, would like to think. It also has the consequence that material objects are best thought of as continuants rather than as the sums of time-slices.

Mill on Moral Wrong, RANDOLPH LUNDBERG

A key element in John Stuart Mill's view of moral wrong is the natural desire to retaliate. In Mill's view, a rule of moral obligation must not only be socially beneficial, but must guard against a kind of consequence that arouses a desire to retaliate in a universally sympathetic spectator. This paper presents evidence for these claims and shows how they explain some distinctive properties of Mill's moral view, including his special attitude toward consequences for the agent, the limit he places on obligations of

beneficence, and his policy on exceptions to rules of moral obligation. Also considered are the related work of David Lyons, and an important question of classification: is Mill's moral view utilitarian?

Is God an Abstract Object? BRIAN LEFTOW

Before Duns Scotus, most philosophers agreed that God is identical with His necessary intrinsic attributes—omnipotence, omniscience, and so on. This Identity Thesis was a component of widely held doctrines of divine simplicity, which stated that God exemplifies no metaphysical distinctions, including that between subject and attribute. The Identity Thesis seems to render God an attribute, an abstract object. This paper shows that the Identity Thesis follows from a basic theistic belief and does not render God abstract. It also discusses how one might move from the Identity Thesis to the full doctrine of divine simplicity and shows that the Identity Thesis generates a new ontological argument.

Does Plato Think False Speech is Speech? GEORGE RUDEBUSCH

There is an unsolved puzzle about Plato's *Theaetetus* and *Sophist* which has been too little noticed. The *Sophist* develops and accepts an account of false speech and belief as saying what is "other." But the *Theaetetus* rejects such accounts. The standard solution is that the *Sophist* is somehow meant to overcome or avoid the problems seen as overwhelming in the *Theaetetus*. It is argued that such a solution fails.

THE PHILOSOPHICAL QUARTERLY
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Relationism and Temporal Topology: Physics or Metaphysics?
ROBIN LE POIDEVIN

Questions concerning the topological structure of time—for example, whether time is linear or closed, bounded or unbounded, dense or discrete—are regarded by many contemporary philosophers as empirical in nature. In contrast, the debate between relationism and absolutism is considered to be *a priori*. This article argues that the relationist, who regards times as possibilities of change, is committed to ascribing certain topological properties to time. We are led to one of two possible conclusions. The first is that time has the topology we standardly ascribe to it (linear, unbounded, nondiscrete), and this can be established on *a priori* grounds. The second is that relationism makes unwarranted empirical assumptions. It is suggested that the second conclusion is the right one.

Autonomy, Liberalism and State Neutrality, ANDREW MASON

This article considers an argument central to contemporary liberalism: respect for persons requires respect for each person's autonomy; since the exercise of autonomy may lead to the acceptance of any of a variety of conceptions of the good, respect for autonomy requires the state to be neutral between different life-plans. A number of different conceptions of autonomy are distinguished—a formal conception and three substantive ones—each of which gives specific content to the underlying idea of self-direction. Several different ways of regarding the requirement imposed on the state by respect for autonomy are also distinguished: this requirement may impose an absolute constraint, or a constraint which may be overridden by other considerations, or provide a goal to be promoted. It is argued that none of these ways of regarding respect for autonomy justifies state neutrality on any of the different conceptions of autonomy which are distinguished.

Freedom Not to be Free, DAVID ARCHARD

This article defends J. S. Mill's argument in chapter 5 of *On Liberty* that individuals should not be permitted to contract into slavery. It discounts reasoning to that conclusion based upon considerations of involuntariness or third-party harms. It suggests that a slavery contract should be viewed as a *self-abrogating* exercise of freedom, and its interdiction seen as consistent with Mill's liberty principle. The article defends Mill against the charge that forbidding voluntary enslavement represents a significant concession to paternalism. It distinguishes the case of slavery from that of suicide, and concludes by considering whether the reasoning behind the prohibition of slavery might not license a broader principle to the effect that liberty may be limited for the sake of liberty.

Attitudes Towards the Body: Philosophy and Common Sense,
COLWYN WILLIAMSON

PHILOSOPHY

Vol. 65, No. 254, October 1990

Naturalism and Scepticism, MARTIN BELL and MARIE MCGINN

Humean naturalism is commonly taken to argue from the inevitability of our ordinary beliefs to the emptiness of philosophical skepticism. Hume is seen as replacing the task of answering skepticism with an empirical investigation into the origin of our beliefs. The authors argue that this is a misconception. Hume's conception of the naturalistic task is to pro-

vide, from within our ordinary outlook, a philosophical account of our ordinary beliefs that shows them to be entirely legitimate, even though they are not rationally grounded. Hume is prevented from completing this task by his commitment to an empiricist conception of experience that is inherently skeptical. It is argued that Wittgenstein had the same conception of the naturalistic project. Insofar as Wittgenstein rejects Hume's empiricist assumptions and returns wholeheartedly to the naturalistic outlook, he is able to achieve the nonskeptical understanding of our commonsense convictions that eluded Hume.

Hume and Intrinsic Value, D. A. LLOYD THOMAS

Intrinsic value is distinguished from instrumental value. It is claimed that intrinsic value is a property of certain objects. Hume, of course, rejects this. Nevertheless he attempts to show (in "Of the Standard of Taste") that long-run convergence as to what is of aesthetic value is to be expected. It is argued that Hume's stance on convergence is forced and implausible, given his theory of value, whereas an expectation of convergence (given certain plausible assumptions) is natural on an objective view. Those who accept the idea of convergence also have reason to accept an objective view of intrinsic value.

Moral Depth, JOHN KEKES

Moral depth involves understanding the significance of contingency for human life in general and for our own lives in particular. The achievement of this understanding tends to be subversive because it is likely to elicit in us inappropriate emotional reactions and to undermine our wholehearted engagement in making our lives good. Moral depth corrects the tendency of our emotions to get out of hand when we realize the unavoidable risks we face, and it motivates us in the absence of any guarantees that our efforts will succeed. Thus moral depth provides a perspective on individual lives as manifestations of the general condition of humanity. The analysis proceeds by reflecting on Oedipus's growth in depth as shown by Sophocles in *Oedipus the King* and *Oedipus at Colonus*.

On Decadence, JANE DURAN

Several lines of argument are employed to support the notion that decadence, as a concept applying to artwork, has at least four key elements. Rowland's citation of the decadence of late Thai temple work is taken as exemplary, and Carroll's work on art-horror, as well as Meeson's on the use of symbol, are utilized. It is concluded that the decadent is contrived for effect, categorically interstitial, rife with the obviously symbolic, and sensual in its effects. The list of hallmarks is not taken to be a set of necessary and sufficient conditions, but rather a filling-out of what we mean by artistic decadence.

Aristotle on Dialectic, D. W. HAMLYN

There have been two recent attempts by Martha Nussbaum and Terence Irwin to explain Aristotle's conception of dialectic and its relation to science in a way which is compatible with G. E. L. Owen's indication that its appeal to *phainomena* is an appeal, not simply to experience, but to opinions of various kinds. The two attempts in question fail because in differing ways they do not explain how the appeal to *phainomena* can provide a *method* for arriving at truth, in spite of their claims in that respect. What needs to be noted is that Aristotle's concern is not just with truth but with acceptance as true by those concerned. Acceptance can be achieved in different ways according to the nature of the subject-matter. In that respect Aristotle's conception of dialectic is on a continuum with that of Plato, or, in any event, the Platonic Socrates.

Validity and Practical Reasoning, DAVID MITCHELL

Are steps in practical reasoning capable of a kind of validity distinct from the deductive validity which steps in theoretical reasoning can have? The answer to this question depends partly on what, in general, validity is. A critique of A. J. P. Kenny's account of practical reasoning makes appear plausible a conception of validity in general as consisting in the guaranteed transmission of "reasonableness" from premises to conclusion, and the greater part of the article discusses this. The main claims made are that (1) if this conception were sound, there would indeed be a distinctive, "practical" species of validity; (2) further reflection on theoretical reasoning shows that the conception is in fact unsound; (3) the manner of its unsoundness strongly suggests there is no distinctive practical validity; and (4) there being no distinctive practical validity does not jeopardize the possibility of people's coming to reasonable decisions by reasoning intelligently about what to do.

ANNOUNCEMENTS

The Metaphysical Society of America announces a call for papers to be read at the forty-third annual meeting, March 13-15, 1992, at Villanova University. The program will consist of invited and contributed papers on the topic "Person and Being." Papers should have a reading time of thirty minutes. Three copies of the paper which do not carry the author's name and address should be submitted. Submissions will be judged by a program committee consisting of Oliva Blanchette, John Lavelly, and Joseph Grange. Submissions should be sent by September 1, 1991, to the Program Chair: Oliva Blanchette, Department of Philosophy, Boston College, Chestnut Hill, Massachusetts 02167.

The Society for the Philosophy of Sex and Love will be meeting with the Eastern Division of the American Philosophical Association (December 1991) and with the Pacific Division (March 1992). Papers should be submitted in duplicate, prepared for blind reviewing, with standard spacing and margins, and no longer than twelve pages including endnotes. Send submissions to Alan Soble, Philosophy Department, University of New Orleans, New Orleans, Louisiana 70148 (tel. 504-286-6257), no later than April 15, 1991 (Eastern Division), or October 1, 1991 (Pacific Division).

The International Society for the Study of Human Ideas on Ultimate Reality and Meaning announces its sixth biennial meeting to be held August 21-24, 1991, at the Scarborough Campus, University of Toronto. Scholars are invited to submit papers on particular topics which deal with how philosophers and other thinkers (any historical period, any culture) contribute to an understanding of the nature of ultimate reality and the meaning of human existence. Abstracts of 100 words should be sent as soon as possible to Institute for URAM, Regis College, 15 St. Mary Street, Toronto, Ontario M4Y 2R5, Canada. Final papers are due March 15. A special symposium will be organized on the theme "Contemporary Responses to Nihilism." Proposals for symposium contributions should be sent by December 31 if possible to Richard Garner, Department of Philosophy, Ohio State University, Columbus, Ohio 43210.

The Departments of Classical Studies and Philosophy at Duke University are pleased to announce a Robert Leet Patterson Conference, "Logic and Metaphysics in Aristotle and Early Modern Philosophy," to be held March 10-12, 1991. Scheduled speakers include Robert Adams, Jill Buroker, Mary Louise Gill, Mark Kulstad, Mohan Matthen, Calvin Normore, Richard Patterson, Robert Sleight, Robin Smith, and Michael Woods. For further information write to Michael Ferejohn or Carl Posy, Department of Philosophy, Duke University, Durham, North Carolina 27713.

The seventh issue of *New Vico Studies*, the yearbook of the Institute for Vico Studies, has recently appeared. *New Vico Studies* publishes ar-

ticles, reviews, abstracts, and notes that reflect the current state of the study of the thought of Giambattista Vico and of its affinities with contemporary thought and implications for it. This issue, dated 1989, contains "Vico: Neglect and Resurrection," by Giorgio Tagliacozzo; "Vico and Antifoundationalism," by Tom Rockmore; "Vico and Chomsky," by Marcel Danesi; "Derrida's Reading of Vico," by Jürgen Trabant; "Vico and Nietzsche," by David Parry; "La Peyrère and Vico," by Richard H. Popkin; and twenty-five reviews of books on Vico or dealing with ideas that are Vichian in nature. Subscription orders may be placed through Humanities Press International, Inc., Atlantic Highlands, New Jersey 07716 (tel. 800-221-3845).

An NEH Summer Seminar for College Teachers, entitled "What is Enlightenment?: Eighteenth Century Answers and Twentieth Century Questions," will be held at Boston University between June 10 and August 2, 1991. The seminar will explore the different ways in which the relationship between philosophical criticism, religious faith, public opinion, and political authority was understood by a group of eighteenth-century German thinkers (including Kant, Mendelssohn, Jacobi, and Hamann). Their writings will be studied in conjunction with twentieth-century critiques of the Enlightenment by such philosophers as Gadamer, MacIntyre, Horkheimer, Adorno, Habermas, and Foucault. Philosophers, political theorists, historians, and teachers and scholars in religious studies are welcome to apply. A reading knowledge of German is desirable, but not essential. Although NEH Summer Seminars are intended primarily for individuals teaching undergraduates, individuals who are not college teachers but are qualified to carry out the work of the seminar are also eligible. Participants receive a stipend of \$3,500 to cover travel expenses, books, and living expenses. For information or application forms, contact the seminar director: James Schmidt, University Professors Program, Boston University, 745 Commonwealth Avenue, Boston, Massachusetts 02215 (tel. 617-353-4020).

Erazim Kohák of Boston University and Univerzita Karlova, Prague, Czechoslovakia, is making an appeal to the philosophical community for assistance in filling the empty bookshelves of his department in Prague. Any duplicates of books from the last thirty years in American, French, or German philosophy would be greatly appreciated. If any books can be spared, they should be sent to: Hana Rydlová, Katedra filosofie FF UK, Palachovo náměstí 2, 116 38 Praha 1, Czechoslovakia.

Northwestern University announces the establishment of a new summer program, the Institute for Classical Philosophy. The Institute offers intensive elementary philological training in classical Greek, Latin, and, in future years, Sanskrit, to students of philosophy, history, theology, and allied disciplines. In the summer of 1991, the Institute will sponsor two independent courses, Philosophical Greek and Philosophical Latin, each of which combines elementary philological instruction with lectures in the history of philosophy. For further information contact the Institute for Classical Philosophy, Summer Session, Northwestern University, 2003

Sheridan Road, Evanston, Illinois 60208-2650 (tel. 708-491-5250; outside Illinois, 800-FINDS-NU).

The Metaphysical Society of America is pleased to announce its sponsorship of a new award in metaphysics in honor of J.N. Findlay. It will be known as The John N. Findlay Award in Metaphysics. It will be awarded every three years by the Society to honor an outstanding or exceptional work in metaphysics, rooted in the historical traditions of western philosophy. A prize of \$1000 will accompany the award as well as a commemorative plaque. The award will be presented at the annual meeting of the Metaphysical Society, with the first award being made in March 1992 at Villanova University. The recipient will be chosen by a panel of judges established by the Executive Council of the Metaphysical Society. Nominations of books are invited from members of the Society, other interested philosophers, and publishers. Books bearing the imprints 1987-1990 (inclusive) will be considered for the first award. Nominations and three copies of the nominated book should be submitted by June 1, 1991, to William Desmond, Secretary, Metaphysical Society of America, Philosophy Department, Loyola College, Baltimore, Maryland 21210-2699.

The Department of Philosophy of the University of North Carolina at Chapel Hill announces the recent appointments of Simon Blackburn, Dorit Bar-On, and Roderick Long to the faculty.